



## A Study of the Customer Experience of Supermarket Online Ordering Services

### Research Report

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#### Statement of authenticity

By submitting this work, I declare that this work is entirely my own except those parts duly identified and referenced in my submission. It complies with any specified word limits and the requirements and regulations detailed in the course work instructions and any other relevant programme module declaration. In submitting this work, I acknowledge that I have read and understood the regulations and code regarding academic misconduct, including that relating to plagiarism, as specified in the programme handbook. I also acknowledge that this work will be subject to a variety of checks for academic integrity.

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**Abstract**

In this present scenario, information technology plays a crucial role in the online shopping business. This research investigated the benefits of using online ordering by customers in supermarket industry. The recent development of networking has affected all areas around the world, including online supermarket ordering. The effect of online ordering on the overall satisfaction of the customers in supermarket industry was studied. Online product ordering services provided a facility to customers so that they can receive their items delivered to their doorstep. In this study, the main focus is to analyse the factors that impact the experience of consumers who are using online supermarket ordering services. Also, other factors that could relate to their experiences are identified, such as factors that can play a significant role in the customer's motivation and satisfaction level. In this proposal, the other components are to analyse the influence of social media and the next strategy to examine different methods to do online shopping and customer feedback to online businesses for further improvement. However, the customer relationship management (CRM) responsible for handling the customer queries with the help of technology. Furthermore, online survey was used to collect data about viewpoint of customers in online supermarket ordering. Technology acceptance model (TAM) was used as the conceptual framework to discover the answers to each of the research questions. The findings revealed that the age and gender of the candidates did have impact on the perceived usefulness, and perceived ease of use of supermarket online ordering. Perceived ease of use had an impact on the perceived usefulness of supermarket online ordering, and perceived usefulness and perceived ease of use had a significant impact on the behavioural intention of usage of supermarket online ordering.

***Keywords:***

Online ordering services, supermarket industry, customer experience, consumer satisfaction, impact of technology, perceived usefulness, perceived ease of use, behavioural intention, overall performance

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## **1. Introduction**

Online shopping is increasing rapidly these days, especially among adults. The Internet plays a role as an intermediary between companies and customers (Aldousari et al., 2016). Various factors have impact on customer shopping behaviour. Online shopping is a safe platform to replace traditional ordering via mobile apps and websites (Seetharaman, Niranjana, Balaji, & Saravanan, 2017). Besides, electronic gadgets also affect the business as well as consumers, including mobile payments, ordering methods, and credit history (Sfenrianto et al., 2018; Lu & Reardon, 2018). The scope of this research to analyse the factors that affect the customer experience in the supermarket industry during online ordering.

Customer experience plays a critical role in customer satisfaction and loyalty. Customer involvement in supermarket online shopping relates directly to several marketing factors such as goals, strategies, and promotions (Richards & Rabinovich, 2018; Seetharaman et al., 2017). There are some vital advantages of online grocery shopping such as saving time, saving on transportation costs, browse on time, and shopping in comfort from home (Bahl & Kesharwani, 2018). Firstly, the registration for online ordering is compulsory and secure for all if someone is ready to use it. Online sellers also need to keep their client's data confidential, for instance- their details, contact numbers, and credit card details (Stefan, Andreiana, & Panagoret, 2017). The research questions aimed to identify the factors that influenced the adoption of online ordering among people in supermarket industry. In this report's literature review, it will also describe the contribution of technology in consumer online supermarket ordering services experiences. The main objectives for this research are to identify all significant factors that can impact customer experience during online ordering in the supermarket industry and also to assess different customer feedback methods in online supermarket ordering. However, to identify all impacts of service improvement on customer's online supermarket ordering experience.

### **1.2 Times have changed (Supermarket's online shopping)**

A few decades ago, customers might not have been aware of the supermarket's online shopping. People used to visit the store physically and wait in line to pay (Willand, 2015). People were not that much mindful of the importance of online shopping. Customers have been used to physically visiting the supermarket store to go shopping (Kuo & Nakhata, 2019).

Initially, retailers started to sell products online with product descriptions, prices, and images, but there was no reliable method for two-way communication between clients and the company (Bleier, Harmeling, & Palmatier, 2019; Lu & Reardon, 2018). Customer satisfaction depends on their personal experience, which relates to product quality, pricing, refunds policy, customer service, discounts, and the use of technology (Daniau, 2015).

The Internet has provided a fast, reliable and acceptable way to communicate between seller and consumer. There are numerous secure paths for sending and sharing an opinion, feedback, or other questions to a merchant (Krizanova et al., 2019). Social media sites are playing a role as portable stores today for shopping and communication purposes (Wang, Malthouse, & Krishnamurthi, 2015).

## **2. Literature review introduction**

Online shopping is described as a convenient way of purchasing goods electronically. Often, these online shopping are defined as online ordering, e-commerce, online purchasing, browsing that can use any electronic device to do shopping. These devices are found very common and should be able to connect to the Internet.

A literature review is a critical analysis of the research, or research questions, or factors related to the topic. The researcher has proper knowledge about the research topic, and related other papers could be described through a literature review (Rajani & Nakhat, 2019). This literature review is divided into sections and sub-sections, which focus on the customer experience. Customer experience with online supermarket ordering is defined in section 2.6. The customer satisfaction level and the importance of buyer satisfaction are identified in section 2.7. The impact of technology and their advantages for online shoppers are examined in section 2.8. There benefits of customer feedback to online ordering business are defined in 2.8.1 sub-section. Social media is also an essential part of the online world; therefore, sub-section 2.8.2 describes the benefits and applications of social media in online supermarket ordering. The different factors that are used to motivate customers to use an online method for shopping are examined in section 2.9. The impact of service improvement and query handling processes are identified in section 2.10 section and sub-section 2.10.1, respectively.

### **2.1 Protocols for literature review**

A protocol was formed for accessing the most appropriate academic resources for this research. The research protocol is a document that includes research topics such as background, purpose, objectives, design, and methodology (Kitchenham et al., 2009). The research protocol assists in selecting the literature for the study and the protocol of this study is shown in Table 1 below.

Table 1. *Protocols for literature review*

<b>Background</b>	<p>Supermarket online ordering services are a shopping opportunity available via different forms of social media. The literature will address areas such as customer experience with online supermarket ordering, customer satisfaction level, and what type of technologies are used for online purchasing (He, Tian, Hung, Akula, &amp; Zhang, 2018). The protocol aims to review peer-reviewed papers and articles that contain online supermarket ordering, customer behavior, customer shopping experience and how technologies influence the online ordering services.</p>
<b>Purpose</b>	<p>The goal of this study is to provide an overview of customer experience in online supermarket shopping and to investigate their satisfaction level.</p>
<b>Research Questions</b>	<p>The main research question is:</p> <p>What are the factors that impact customer experience in online ordering in the supermarket industry?</p> <p>There are five research sub-questions:</p> <ul style="list-style-type: none"> <li>• What are the benefits offered by online ordering to customers in the supermarket industry?</li> <li>• What are the benefits of social media to users to share their online ordering experience?</li> <li>• What are the factors that motivate customers to use online ordering in the supermarket industry?</li> <li>• What are the impacts of service improvement on customer's online ordering experience in the Supermarket industry?</li> <li>• What are the factors that motivate customers to send feedback for the online supermarket industry?</li> </ul>
<b>Search strategy</b>	<p>The focus on search with keywords:</p> <p>(Online ordering services or online shopping or e-commerce) OR (Online ordering in supermarket or electronic shopping) AND</p>

	<p>(“browsing online shopping” or ordering or electronic purchasing)</p> <p>The research will use the WINTEC One-Search with the preceding datasets: ScienceDirect, EBSCOHost, ACM Digital library, ProQuest.</p> <p>One-Search is a WINTEC single-search system that helps to find hundreds of online ebooks and thousands of academic journal articles from the WINTEC library. To search almost all the WINTEC library resources at once through One-Search is possible.</p>
<i>Study selection criteria</i>	<p>All the papers used in this research were decided on based on the following inclusion criteria:</p> <ul style="list-style-type: none"> <li>• Papers directly answer research questions.</li> <li>• Studies included research keywords.</li> <li>• The articles were published in the journal with impact factors.</li> <li>• Full-length text.</li> <li>• Peer-reviewed journals.</li> <li>• Paper was published in the years from 2014 to 2020.</li> </ul> <p>However, the literature search excluded the following:</p> <ul style="list-style-type: none"> <li>• Documents related to online supermarket staff, financial status, refunds, and locations.</li> <li>• Documents that are in the form of a slide presentation.</li> <li>• Book chapters.</li> <li>• Opinions and viewpoints.</li> <li>• Documents published in a language other than English</li> </ul>
<i>Study selection procedures</i>	<p>The focus of the research was on using peer-reviewed articles published between 2014 – 2020 related to online supermarket ordering. The study selection process inclusion criteria are the following articles are peer-reviewed articles contain online ordering in the supermarket industry and customer experience as a primary focus, articles required to meet all study requirements.</p>

<i><b>Study quality assessment</b></i>	<p>The quality of the selected study was assessed according to the given criteria below:</p> <ul style="list-style-type: none"> <li>• The study presents clear objectives and aims of the research.</li> <li>• The literature provides appropriate information.</li> <li>• The literature has described the topic.</li> </ul>
<i><b>Data extraction strategy</b></i>	Data extract from academic articles will cover author and date, journal name, article title, main objectives and topic, main findings and keywords, the conclusion of a topic.
<i><b>Data synthesis</b></i>	Before the final report submission, make sure that all articles are peer-reviewed and refining the framework of research, as well as used to answer the research questions.
<i><b>Dissemination strategy</b></i>	In some cases, adopted to compare two articles, analyse and refine them to fetch relevant information. After that, all results will be documented in the research report using Microsoft Word.
<i><b>Data Synthesis</b></i>	Different areas in online supermarket ordering, Customer experiences, customer satisfaction, and online ordering methods studies, were gathered to find topics that answer the research questions. Reviewed all articles, refined research framework, and as well as used to answer the questions before submission.
<i><b>Dissemination</b></i>	Microsoft Word will be used as a research report document that includes all results relate to this study.

WINTERC One-search was used to search for all academic papers related to this topic. WINTERC One-search is a competent and advanced tool that permits users to retrieve and examine scholarly papers sources, magazines and journals, and One-search is also further linked to other academic sources and datasets (WINTERC, 2019). One-search is a reliable data source of the WINTERC library that allows researchers to access online peer-reviewed articles and other academic journals. There

are several datasets included in WINTEC One-search, such as ProQuest, ScienceDirect, and EBSCO. Additional datasets and search engines were used, such as ACM digital library, ijet journal library, Google scholar, information science, and IGI global. Some academic articles were hard or tough to find from the WINTEC One search.

Table 2 displays documentation and data sources for this study. All included literature reviewed for this research was published between 2014 to 2020.

Table 2. *Data source and documentation*

<i>Data source</i>	<i>Documentation</i>
<i>Digital Library of WINTEC</i> <i>(One-search database)</i>	EBSCOhost, ScienceDirect, ProQuest Date of search – after 2014 years covers by documents – from 2014 to 2020
<i>Conference proceeding</i>	N/A
<i>Efforts to analyse unpublished papers</i>	N/A
<i>Other sources</i>	ACM Digital Library

Table 3 illustrates the research databases from WINTEC One-search that some articles and research papers from each dataset. To complete the literature, WINTEC One-search was utilized. There are various datasets attached to WINTEC One-search, such as ProQuest, EBSCOhost, ScienceDirect (WINTEC 2019).

Table 3. *Datasets for Number of Articles and Journals*

<i>Datasets</i>	<i>Research papers</i>		<i>Number of Articles</i>
<i>One-search</i>	Yes	Yes	27
<i>ScienceDirect</i>	Yes	Yes	12
<i>EBSCOhost</i>	Yes	Yes	11
<i>ProQuest</i>	Yes	Yes	15
<i>Google Scholar</i>	No	Yes	1



Table 3 also depicts the journal articles, research papers, number of datasets, and articles used in research. The first column shows how many datasets were used by the author. The second and third column defines the category of research papers and journal articles. The last column show the number of articles retrieved.

First, article abstracts were read to determine whether journal concentration was on the main topic, and also duplicate journals were removed. Next, the articles were read to analyse whether they included the topic history, research approaches, methods, search keywords, techniques, and tools. Table 4 shows the following steps that were taken for a selection of research articles.

Table 4. *Selection of research article criteria*

<i>Criteria</i>	<i>Number of papers (In-Out)</i>
<i>Eliminate Duplicates Articles</i>	820 - 150
<i>Check Title of Article</i>	670 - 40
<i>Check Abstract of Article</i>	630 - 397
<i>Document without access</i>	233 - 46
<i>Check Introduction/Conclusion</i>	187 - 112
<i>Read full-text Article</i>	75 - 0

## 2.2 PRISMA flow diagram

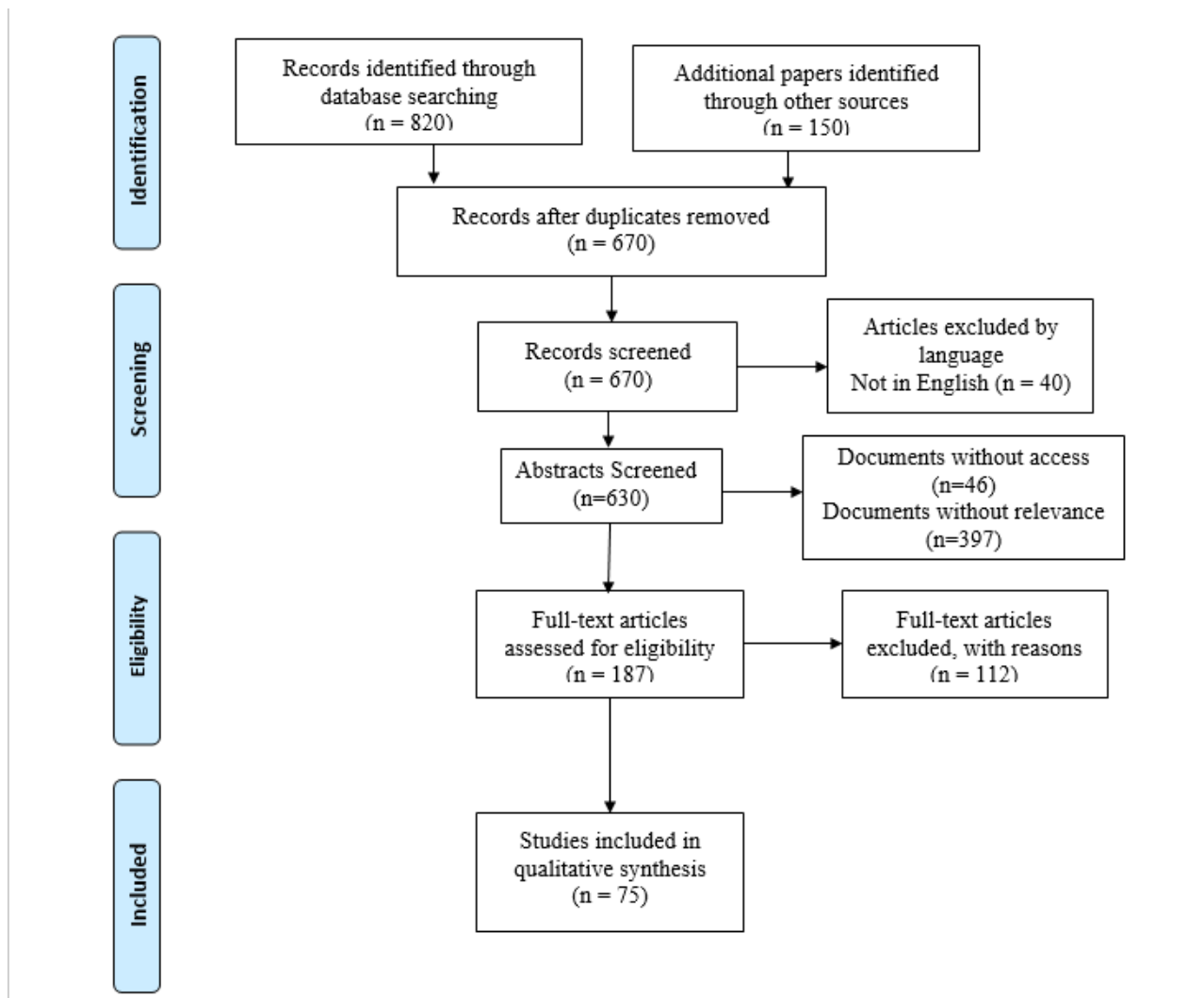


Figure 1. Preferred Reporting Items for Systematic Reviews (PRISMA)

The PRISMA flow diagram (figure 1) is divided into four portions, the identification box has recorded a total of 970 articles through database sources and other relevant sources. Second, screened the 630 articles due to the duplication of articles and excluded by language (not in English). Next, screened the abstracts, 630 articles excluded because of irrelevance records (Little, Sinclair, Huiru, & Gillen, 2018). The eligibility box is used to add full-length text eligible articles 187, and 112 papers were excluded with reasons. The explanations for exclusion were recorded without a publication date, without enough analysis, articles without contents, and not relevant with research keywords.

In the end, only 75 articles were included due to the relevance of the search topic and other unrelated articles and works from other productions were excluded (Ferreira, Barreira, Loures, Antunes & Panagopoulos, 2020).

### 2.2.1 Collection of data

The collection of data is based on the selected academic papers and chosen criteria. All documents are listed in Table 5 according to the title of an article, published date, type of article, findings, and research methods.

Table 5. *Data collection according to study criteria*

Author	Article Name	Date	Topic Type	Findings	Research method
Abu & Ahmed	Technology motivation in e-marketing adoption among Malaysian manufacturers	2015	Technology adoption in e-marketing	Attitudes toward online shopping technology	Qualitative case study
Wann & Ching	An online shopping behavior model integrating personality traits, perceived risk, and technology acceptance	2015	Online shopping usage and analysis	Use of technology in online shopping	Statistically significant survey
Daniau & Philip	The influence of the advent of the online retail on the physical retailing	2015	Internet stores for ordering	Online supermarket ordering	Qualitative research study
Khan & Brouwer	The relation between customer types in a real supermarket compared to a virtual supermarket	2016	Customer behavior	Supermarket electronic shopping and digital technology	Statistically significant virtual worlds research
Wu & Huang	Analyzing complaint intentions in online shopping: the antecedents of justice and technology use and the mediator of customer satisfaction.	2015	Information technology and customer loyalty	Customer satisfaction, Consumer attitudes, Customer relations, Complaint intension, technology use	Statistically significant survey

Mills & Plangger	Social media strategy for online service brands	2015	Social media and CRM	Product & brand management, Online information services,	Qualitative research
Howison et al.	Insights into the web presence, online marketing, and the use of social media by tourism operators in Dunedin, New Zealand	2015	Social media in e-marketing	Online marketing, web services, social media, Internet surveys, Communication	Qualitative research
Aldousari et al.	Determinants of consumers' attitudes toward online shopping	2016	Purchase attitudes towards online shopping	Consumer behavior, Online shopping, Technology Acceptance Model	Statistical analysis
Anesbury et al.	How do shoppers behave online? An observational study of online grocery shopping	2016	Online grocery shopping	Online shoppers' behavior	Qualitative case study
Kumar, M.	Consumer behavior and satisfaction in e-commerce: A comparative study based on online shopping of some electronic gadgets	2016	Customer behavior and satisfaction	Online supermarket shopping gadgets	Statically significant survey
O'Sullivan, T	Developing an online dispute resolution scheme for new zealand consumers who shop online-are automated negotiation tools the key to improving access to justice?	2016	Online shopping and New Zealand	Online traders, consumers who shop online	Qualitative Research paper
Prateek et al.	E-service quality, consumer satisfaction and future purchase intentions in e-retail	2016	Online service quality	Consumer satisfaction, purchase intention, Web services	Qualitative interviews

Sferianto et al.	A study of the moderate growth of online retailing (e-commerce) in the UAE	2017	Online retailing	Moderate growth, Lack of awareness & trust	Statistically significant survey
Ferreira et al.	Stakeholders' engagement on nature-based solutions: A systematic literature review	2020	PRISMA Flow diagram	Methods, Identification, screening and eligibility.	A systematic literature review
Stefan at al.	The role of social networks in the evolution of online sales - study case	2017	Role of social media in online sales	Online sales and social media, customer experiences with social networks	Qualitative case study
Poushneh & Vasquez-Parrage	Customer dissatisfaction and satisfaction with augmented reality in shopping and entertainment	2017	E-marketing consulting services	Customer satisfaction, Marketing technology, and Qualitative research	Qualitative interviews
Zhang et al.	Online shopping and social media: Friends or Foes	2017	Social media & Online shopping	Customer satisfaction, lack of trust and awareness	Qualitative interviews
Siva, K. & Gunasekaran	An empirical study on the factors affecting online shopping behavior of millennial consumers	2017	Factors driving online shopping	Attitude and intentions; consumer innovativeness; millennial,	Qualitative case study
Bahl & Kesharwani	factors affecting online shopping behavior	2018	Shopping behavior and attitudes	Customer rights and e-shopping	Statistically significant survey
He et al.	Measuring and comparing service quality metrics through social media analytics	2018	Quality of online services	Supermarkets, customer satisfaction, data analysis	Qualitative interviews
Arce-Urriza & Cebollada	Assessing the success of private labels online: differences across categories in the grocery industry	2018	Online shopping channels	Grocery industry, Customer loyalty, Economic competition	Qualitative research

Gillison & Reynolds	Satisfaction while shopping for another person: How others' product evaluations influence shopper satisfaction	2018	Customer experience and online shopping	Customer satisfaction, customer behavior, decision making	Qualitative research
Chung et al.	Do touch interface users feel more engaged? The impact of input device type on online shoppers' engagement, affect, and purchase decisions.	2018	Types of electronic devices and online shopping	Purchase intention, online product choice, and Consumer behavior	Qualitative research study
Krizanova et al.	The effectiveness of marketing communication and importance of its evaluation in an online environment	2019	Online shopping services, market communication	Marketing Management, online marketing communication, Brand loyalty	Qualitative case study
Anand et al.	Impact of hedonic motivation on consumer satisfaction towards online shopping: Evidence from Malaysia	2019	Customer motivations	Customer trust in online supermarket shopping	Qualitative interviews
Haseon & Joonghwa	Discourse analysis of online product reviews: A discussion of digital consumerism and culture	2019	Online marketing strategy	Online products reviews, Digital consumerism, and culture	Qualitative interviews
Zou & Liu	How nutrition information influences online food sales	2019	Online food sales	Internet sales, e- grocery shopping, Nutrition information	Qualitative research study
Ying-Yen	Exploring the importance of behavior during personal interactions and customer relationship management	2019	Customer Relationship Management (CRM)	personal interaction behavior, globalization, economic scope, sustainable operation, trust, and commitment	Statistically significant survey
Kumar	online customer satisfaction and loyalty in apparel purchase: A review of extant literature	2019	E-marketing services	Customer satisfaction, customer attitude, and online supermarket shopping	Qualitative management case study

Ngwe et al.	The Impact of increasing search frictions on online shopping behavior: Evidence from a field experiment	2019	E-commerce friction	Online retailing, price discrimination, search costs	Qualitative case study
Shafiee, M. M. & Bazargan, N. A.,	Behavioral customer loyalty in online shopping: The role of e-service quality and e-recovery	2018	Customer loyalty in online shopping	E-service quality and E-recovery	Qualitative E-commerce research
Zimaitis, I. & Degutis, M.,	Social media use and paranoia: Factors that matter in online shopping	2020	Social media influence and online shopping	Social media methods for online shopping	Qualitative interviews
Saha et al.	Will consumers pay more for efficient delivery? An empirical study of what affects E-customers' satisfaction and willingness to pay on online shopping in Bangladesh.	2020	E-shopping satisfaction	Online shopping experience, cost-saving efficiency delivery efficiency	Statistically significant survey
Benn et al.	What information do consumers consider, and how do they look for it, when shopping for groceries online?	2015	The online shopping environment	Pre-purchase information-seeking behavior, Online grocery sites, Online grocery retailer	Qualitative interviews
Choi, Chung & Young	Sustainable online shopping logistics for customer satisfaction and repeat purchasing behavior	2019	Growing online shopping industry	The online shopping experience, E-commerce, Customer satisfaction	Qualitative interviews
Farhangi et al.	Analyzing the impact of social media on consumer attitudes toward the brand and their intention to purchase	2014	Online shopping	Impact of social media on online consumers, attitude toward an online brand	Qualitative research study

Dickson, P.	The adoption of customer service improvement practices	2015	Online customer service improvement		Qualitative Marketing research
Charumathi & Rani	An empirical study on consumers buying bahaviour towards online shopping.	2017	Online shopping	Consumers, E-marketing, Communication	Qualitative interviews
Kuo & Nakhata	The impact of electronic word-of-mouth on customer satisfaction.	2019	Electronic word-of-mouth	Consumer satisfaction, Consumer-retailer relationship, decision-making process	Qualitative case study
Kedia et al.	Establishing collection and delivery points to encourage the use of active transport	2019	Online shopping, New Zealand	Online collection & delivery point, online shoppers	Qualitative interviews
Abdul et al.	The application of the technology acceptance model under different cultural contexts: The case of online shopping adoption	2014	Online shopping adoption	Technology acceptance model, Perceived ease of use, perceived usefulness	Qualitative marketing research
Jiaxiang & Xingyu	Study on the satisfaction of consumers with online ordering services and its influencing factors in o2o mode: A microcosmic perspective on the provision of takeout services.	2018	Consumer satisfaction	Quality of services, O2O (online to offline), Online ordering	Qualitative case study
Haripriya et al.	Using social media to promote e-commerce business.	2018	Consumer attitudes	Retail industry, e-commerce websites	
He et al.	Measuring and comparing service quality metrics through social media analytics.	2018	Social media analytics	Customer satisfaction, Quality of service, Supermarkets	Case study
Rajani & Nakhat	Consumer behavior in online shopping: What they think before they buy.	2019	Consumer behavior	Online shopping, e-commerce, Qualitative analysis	Quantitative research



### **2.2.2 Evaluate the quality**

Evaluating the quality of the study is the process of analyzing and transferring a judgment on the level of research standards and quality. The collected information for this research is done according to the identification of research criteria. In this research project, all academic articles contribute to finding the answers to research questions.

### **2.3 Limitations of the literature review**

There were some limitations of the literature review, such as enough reliable data sources that were not available for study. Only peer-reviewed articles are selected for this research, published between the years of 2014-2020. There is a limited number of articles chosen before 2014 because these articles covered the research area and criteria. Some articles have been rejected due to the published date. Often, the article was not relevant to the benefits and limitations of the literature review. Sometimes, it was hard to decide about specific papers unless the full article was read.

### **2.4 Literature map**

This section will evaluate the means of consumer experience, online ordering methods, their satisfaction level, the role of technology, customer motivational factors, and improvement in the supermarket online shopping industry services. This literature is divided into many titles and sub-titles. The following Figure 3 shows the literature map based on a literature review, which is also known as a concept map.

A concept map is a graphical tool and visual representation of research, which shows themes and concepts and the relationship between them through arrows. In specific research, it covers the areas and processes of conducting a research project (Hlee, Lee, & Koo, 2018). A concept map (Figure 2) presents the research divided into main two portions and then into several ideas and sub-ideas to clarify the motive of research. The first portion concentrates on customer experience with online supermarket ordering such as customer satisfaction, impact of service improvement, and the query handling process. The second part focuses on the role of technology in online supermarket ordering for shopping and which technology method is convenient for customers to shop online. The second part divided into sub-sections which defines the online customer motivational factors and how social media platform beneficial for online shopping. Figure 2 defines the basics and outline of the study. In this literature map, each research topic, themes, and sub-themes described plainly. The research used [www.coogole.it](http://www.coogole.it) online application to draw this concept map.

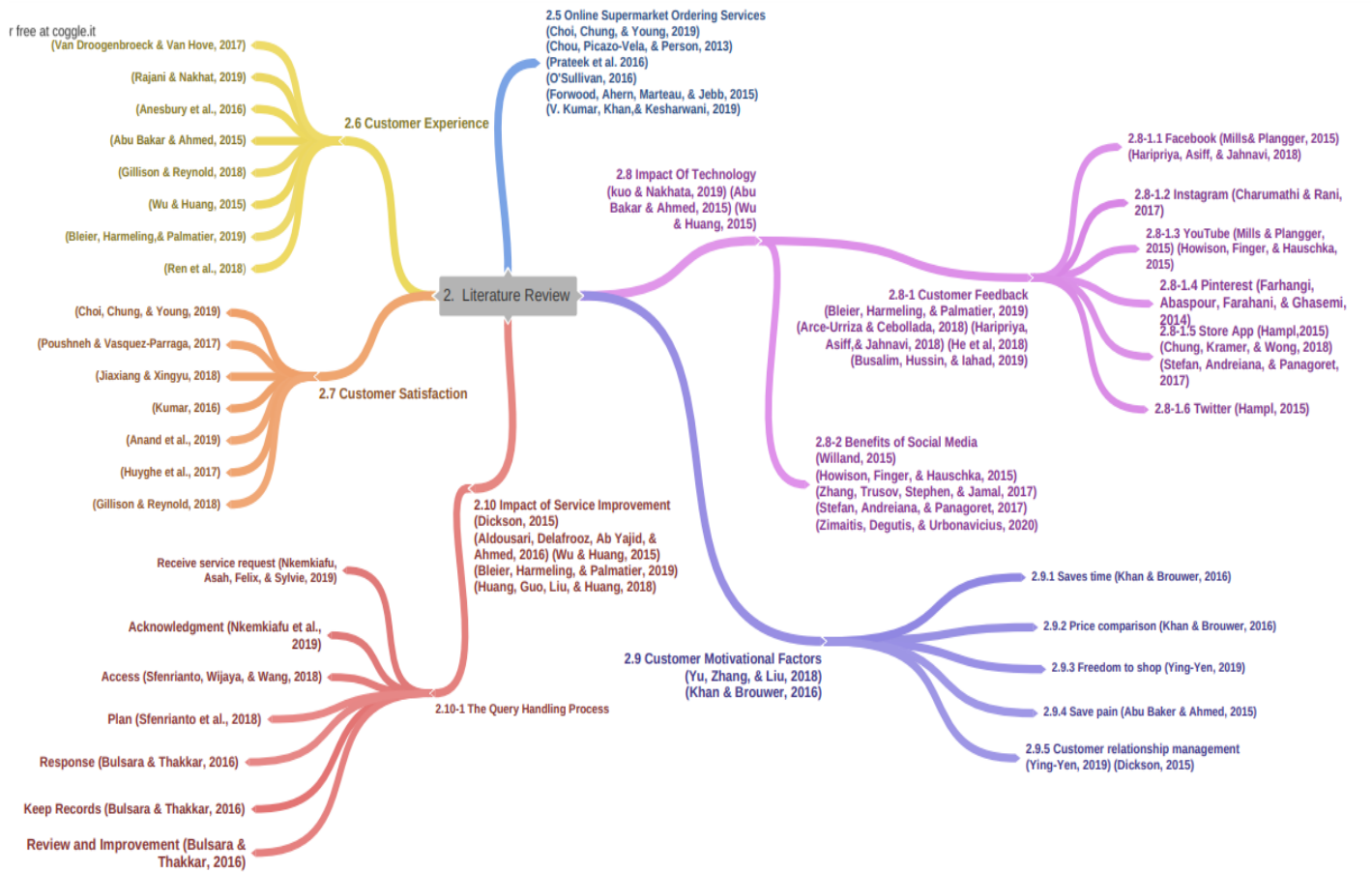


Figure 2. Literature-Map

## **2.5 Online supermarket ordering services**

Online ordering can describe a convenient and simple method for customers to buy products online without having to go to the supermarket. Internet connection plays an essential role in both parties, the supermarket, and a customer site (O'Sullivan, 2016; Forwood, Marteau, & Jebb, 2015). Online supermarket ordering has grown in popularity day by day due to comfortable services. Furthermore, customers browse items from supermarkets' e-commerce websites and mobile apps and purchase the products. There are delivery options for customers they can come to the store to pick up or choose the home delivery option (Choi, Chung, & Young, 2019; Chung, Kramer, & Wong, 2018).

However, payments for online shops can be made in various ways, for instance: cash, credit card, digital wallet, and even card on delivery acceptable, which is entirely secure and safe (Jiaxiang & Xingyu, 2018). The main aim to improve online supermarket ordering services is to promote online business and expand the size of the online retail market (Kumar, Khan, & Kesharwani, 2019). The quality of e-shopping services is excellent these days due to high competition in online industries. Moreover, customers' expectations like functionality, payment security, customer services, and atmospheric qualities are compulsory for secure online shopping (Chou, Picazo-Vela, & Pearson, 2013). According to Prateek et al. (2016), the future of online purchases is bright, which can judge the rapid use of online supermarket ordering in the world. Therefore, the future of online ordering depends on their current customers' shopping experiences and satisfaction level.

## **2.6 Customer experience**

According to Anesbury et al., (2016), the online purchase experience is the user's wish to use online technology to buy products from the supermarket. Recognizing and understanding the customer experience is essential for a supermarket to maintain its position in this highly competitive retail environment (Rajani & Nakhat, 2019). A position in the market depends on the company to provide an exceptional consumer experience with their excellent services so that clients will possibly refer to others and return to the store (Van Droogenbroeck & Van Hove, 2017; Rajani & Nakhat, 2019). Connections between the customers and the company generate either negative or positive customer experience. Online ordering customer experience involves every factor of services such as ordering, organization's culture and, delivery experience (Abu Bakar & Ahmed, 2015).

To create a positive customer experience, the supermarket industries should find the path to meet and analyse their customer expectations in the beginning (Wu & Huang, 2015). The center of digital customer experience design depends on improving and building products that meet their requirements (Ren et al., 2018; Bleier, Harmeling, & Palmatier, 2019). Furthermore, all online businesses included the supermarket industry using customer experience strategy. Customer experience strategy contains best practices such as convenience service, purchase convenience, ease of use, personalization, and channel flexibility to fulfill consumer needs (Gillison & Reynolds, 2018).

## **2.7 Customer satisfaction**

The supermarket brands are competing to boost their customer satisfaction with their online shopping services. Customer satisfaction level influences through various factors, for instance, product variety, website design, reliability, and delivery services (Anand et al., 2019; Jiayang & Xingyu, 2018). Additionally, customers can order anything globally within any time frame and budget. They can also get more than one product from the same business (Huyghe et al., 2017; Anand et al., 2019). Through the mobile ordering apps, customers can use tablets, mobiles, and other handheld devices to order. Customers can save their credit cards and contact details for future payment and delivery through e-payment (Jiayang & Xingyu, 2018).

Customer experience reviews are critical as customer satisfaction for online business. The fact is that before visiting an online shop site, most of the customers initially read online reviews of their existing customers (Choi, Chung, & Young, 2019; Gillison & Reynolds, 2018). The trust of customers on online reviews more than personal recommendations. The negative customer experience is working as a barrier to a business that affects business revenue and reliability. The positive reactions of consumers are enhancing the business reputation and client relationship (Kumar, 2016).

In the online ordering industry, Customer experience and satisfaction depend on direct way interaction between the buyer and seller (Prateek, Richa, & Sibongiseni, 2016; Ren et al., 2018). Offer excellent customer service and to receive positive reviews are a significant milestone of any company to boost their sales (Poushneh & Vasquez-Parraga, 2017).

## **2.8 Impact of technology**

Technology plays a central role between buyers and sellers in the online shopping industry. Technology also influences customer feedback and an online ordering in the supermarket industry (Bakar & Ahmed, 2015; Wu & Huang, 2015). In this paper, the main impact of technology will outline different technology customer feedback methods that use for online ordering from the supermarket. However, they also define how social media digital technology beneficial for online buyers (Kuo & Nakhata, 2019). In the following theory, the study will show the impact of technology and social media on online shopping from the supermarket industry.

### **2.8.1 Customer feedback**

Currently, the studies prove that most of the people are using social media methods to send their feedback. The social network has changed the process in which we shop and response (Busalim, Hussin, & Iahad, 2019; He et al., 2018). Social media involvement is rapidly increasing in every business stream, including digital marketing around the globe. Social media is an open platform for all customers to share their personal ordering experience with business in form of feedback. (Bleier, Harmeling, & Palmatier, 2019). Each company has their own decision, which way they want to allow their customers to receive their reviews. This is the customer's personal choice, which method is convenient for them to document their responses. There are some popular social media methods listed below that helps customers to share their experiences publicly (Arce-Urriza & Cebollada, 2018; Haripriya, Asiff, & Jahnavi, 2018).

**2.8.1.1 Facebook** - The customers can demand services and leave their feedback on the Facebook shop page. Customers can add or delete an unlimited number of reviews that can be easily possible at any time while ordering. Facebook is a popular social media platform to use for online shopping feedback purposes (Haripriya et al., 2018). Anyone can check the popularity or market rating of the online supermarket brands, and the Facebook shop page rating depends on the customer's reviews (Mills & Plangger, 2015).

**2.8.1.2 Instagram** - Customers have a right to create their account on this site to buy anything and to share their experiences through Instagram. Customers can send messages on an Instagram post, and also it has a notable influence on online brand management these days (Charumathi & Rani, 2017).

**2.8.1.3 YouTube** - YouTube networking channels are providing a platform where customers can obtain all product details before shopping and can share their shopping experience (Howison, Finger, & Hauschka, 2015; He et al., 2018). YouTube contains product details in brief with audio and video to meet client requirements. An online selling company may have its own YouTube channel with a review button option on the homepage from where they can receive users' feedback (Mills & Plangger, 2015).

**2.8.1.4 Pinterest**- Pinterest benefits people to find products easily by pointing their camera at an object. Pinterest will show lots of products list the same as an image to save time. Pinterest contains a comment box where customers can write their reviews (Farhangi, Abaspour, Farahani, & Ghasemi, 2014).

**2.8.1.5 Store App**- This technology is allowed to do online ordering through smartphones with top-related supermarket shopping store apps (Chung, Kramer, & Wong, 2018; Stefan et al., 2017). The store app features create shopping lists, bar code scanning technology, discounts, and provide a link to receive their customer feedback with these new changes (Hampl, 2015).

**2.8.1.6 Twitter**- The use of Twitter for online supermarket shopping is increasing rapidly and also have option for customer comments. Twitter also work as a customer support channel the same as other social media channel users can share their experiences (Hampl, 2015).

## **2.8.2 Benefits of social media**

Social media is an easy way to do online supermarket shopping. People can find the products and services that they are looking for with the help of social media posts. The other reason behind its ease of use is that social media not just concentrates on product text description but also defines the item with images, videos, and audio (Zhang, Trusov, Stephen, & Jamal, 2017). These ideas assist new customers in understanding the product more appropriately and straightforwardly. Customers can order those supermarket products that are not available in their city or country (Stefan et al., 2017; Zimaitis, Degutis, & Urbonavicius, 2020).

However, the cost is a primer factor for users while selecting online shopping methods. Customers avoid the high-cost channels for online ordering, but social media is a cheaper open platform for customers to do shopping online from anywhere at any time (Zhang et al., 2017; He et al., 2018). They are also able to compare prices and shop 24/7 according to their schedule (Howison, Finger, & Hauschka, 2015). Customers do not need to waste their time in a waiting queue to pay a

shopping bill. Social Media channels provide an open stage to users so that they can leave comments and create awareness between other consumers according to their experience (Mills & Plangger, 2015; Abu & Ahmed, 2015). The most significant benefit is shopping through social media sites is providing discount coupons, new deals, and free shipping offers (Willand, 2015).

## **2.9 Customer motivational factors**

The food marketing institute (FMI) has analysed the factors that affect customer decision for shopping such as economic factor, personal factor, functional factor, marketing factor, social and cultural factors (Khan & Brouwer, 2016). Many reasons are to push customers to choose to shop online for ordering from the supermarket industry. Various critical elements determine whether a customer buys offline or online (Yu, Zhang, & Liu, 2018).

**2.9.1 Saves time** – Online grocery shopping saves the customer time. Customers do not need to visit a store physically. Online users can log on any time and they still have the benefit of a fully stocked shop (Khan & Brouwer, 2016).

**2.9.2 Price comparisons** – Online supermarket sites have a feature of product cost comparison. Customers do not need to remember prices in other stores (Khan & Brouwer, 2016).

**2.9.3 Freedom to shop** – Online ordering can be done at any time. So, the store timing will not compel customers to do shopping within given period (Ying-Yen, 2019).

**2.9.4 Save pain** – Save pain means that some people have difficulty in going to a supermarket. For instance, mothers with small children, the physically sick, people who cannot drive, or those who cannot lift heavy food items (Baker, & Ahmed, 2015).

**2.9.5 Customer relationship management** - Customer relationship management (CRM) is a business approach that motivates new users to shop online. CRM works as a bridge between a company and its customers to improve profitability and streamline processes (Dickson, 2015). The leading role of CRM is to maintain the relationship between teams, including customers, colleagues, service users, suppliers, and others (Ying-Yen, 2019).

## 2.10 Impact of service improvement

Customer positive experience is paramount in the online shopping industry. Therefore, service improvement includes all aspects of quality improvement, like effectiveness, care, company strategies, and knowledge of safety (Huang, Guo, Liu, & Huang, 2018; Bleier et al., 2019). Quality development means to increase the focus on the efficiency, cost of services, and effectiveness of services. Social media sites are also a path for customers where they can rate their satisfaction level in the form of feedback according to their shopping experience (Dickson, 2015).

There is a long technology list that is used in online supermarket companies to measure their customer's comfort (Wu & Huang, 2015). This report exposed some of the most respected social sites for online purchasing in the previous section. Digital marketing believes social media is working as a bridge between the retailer and the buyer.



*Figure 3. Importance of Service Improvement (Dickson, 2015)*

According to Figure 3, a service improvement system is a crucial element of customer satisfaction that affects customer loyalty and the company's reputation. Digital word-of-mouth can change the business image in the marketplace. For instance, customer satisfaction and feedback will contribute to the decision-making process of the business (Wu & Huang, 2015; He et al., 2018). The same process will further use to improve profit level and service. The query handling process is an essential part of supermarket service improvement that defines what is the process to handle their customer's queries and whom it will contribute to improving the overall company performance (Aldousari, Delafrooz, Ab Yajid, & Ahmed, 2016).



### 2.10.1 The query handing process

There are some steps to enhance the quality of services in the supermarket online ordering industry. The whole process of query handing shown in Figure 4 below.

- Receive service request – To receive customer queries and provide an instant response is an essential part of the service improvement process. Customers should be aware of how and where queries are handled (Nkemkiafu, Asah, Felix, & Sylvie, 2019).
- Acknowledgment - Immediate and direct way acknowledgement will increase the trust between seller and buyer. In some cases, customers want an instant response to their queries (Nkemkiafu et al., 2019).
- Access - Eventually, the reply can take time because the right judgment is essential in every situation. The customer service department must access and process the questions according to company policies, compensation, and legal issues (Sfenrianto, Wijaya, & Wang, 2018).
- Plan - The organization and customer's investigation are performed by planning. The outcome of this step will affect the whole process of customer query that relates to positive or negative manners (Sfenrianto et al., 2018)

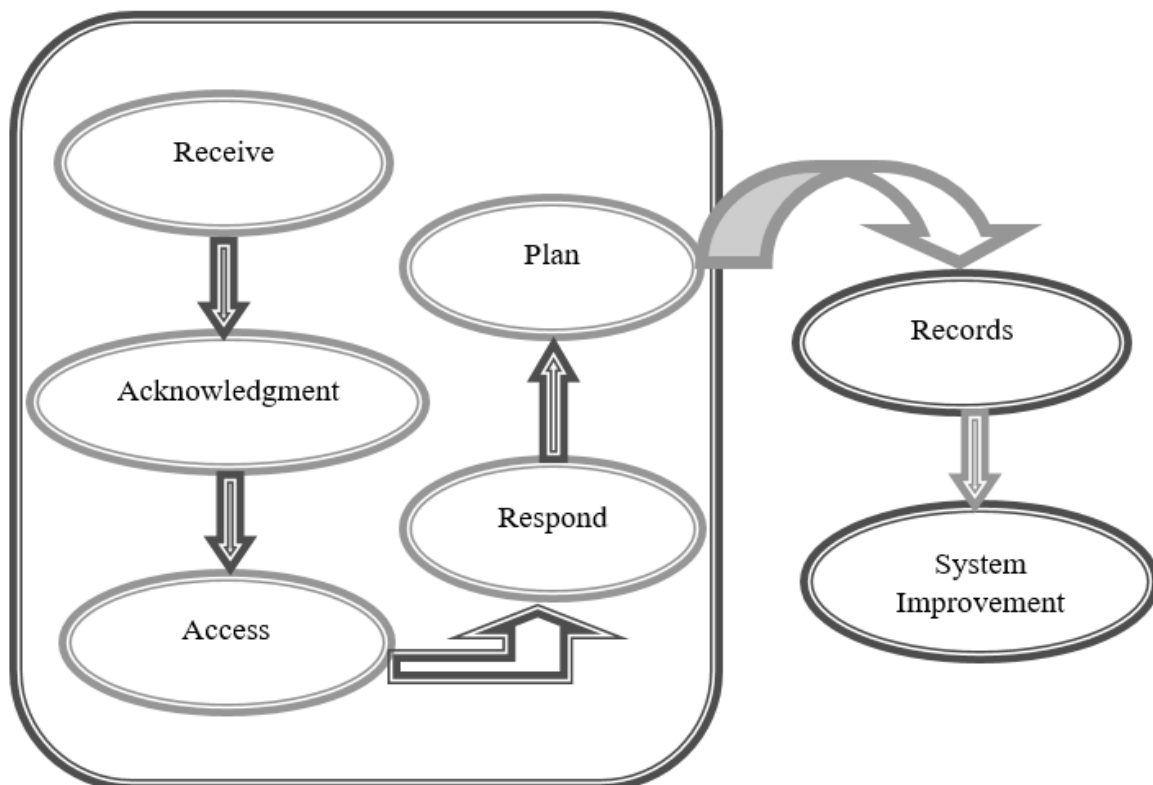


Figure 4. Process of Query handing (Nkemkiafu et al., 2019)

- Response - The response is an essential attribute of excellent customer service management. Customer expectations are the quick and best answer. At this stage should involve all expectational information and acknowledgment of requests (Hampl, 2015).
- Keep Records - After reliable replies, the companies should keep the records related to each consumer's query. Client history could be helpful anytime in the future for both seller and buyer, such as credit card, personal details, customer identification, and account related queries (Hampl, 2015).
- Review and improvement – At the end of the experience, development is essential to start rating and reviewing customer's performance. However, the customer queries process is a part of the feedback. Because the feedback is a display place, where the company can make a better decision to improve its customer service system (Hampl, 2015).

## **2.11 Conclusion of literature review**

In today's retail environment, the position of the company depends on its facilities that will affect their customers' experience. This report highlights the consumer's online supermarket shopping experience from various points of view that might be good or bad based on their own beliefs. The report reveals the fact that technology is the primary factor that plays an essential role in online supermarket ordering (Seetharaman et al., 2017; Charumathi & Rani, 2017). However, each business has online market policies, which includes the responsibilities of company towards their online customers. Revolution in shopping also brings a transformation in customer's lifestyles and e-businesses (Lu & Reardon, 2018; Willand, 2015).

### **3.0 Research methodology**

For this research, e-shopping and communication theory have been used to describe the study, and to analyse the relationship between online supermarket ordering and customers to investigate answers to research questions. According to Akram (2018), the latest online technologies change the way customers and businesses interact and have provided new shopping platforms for clients. This segment describes the objectives, research questions, and then evaluate the hypotheses for this research. A theoretical framework has been proposed that shows the connection between the dependent and independent variables with each hypothesis. Moreover, the ethical considerations, research method, survey questions, and limitations of the research methods have been discussed in this section. Company details, staff payment methods, company taxes, or refunds process are not investigated in this research. This research only concentrated on online public shopping experiences and their impact on other people.

To find the answers to the research questions listed in the research proposal will use hypotheses and redesigned the TAM model. This research will use an online, statistically significant survey technique to gather replies from the participants. The proposed data gathering, sampling technique, and data analysis methods were mentioned in this research proposal.

### **3.1 Objective of the research**

The main target of this research is to study the effects of online supermarket ordering on customers. In this research project, online shopping methods, and experiences that are convenient for buyers are investigated. The chief objectives for this research are:

- To identify all significant factors that can impact customer experience during online ordering in the supermarket industry
- To assess different customer feedback methods in online supermarket ordering
- To identify all benefits of social media to users to share their experience in online supermarket ordering
- To assess various factors that motivate customers to use online supermarket ordering
- To analyses all appropriate methods for online ordering in the supermarket industry
- To identify all impacts of service improvement on customer's online supermarket ordering experience.

### **3.2 Research question**

These research questions are developed to analyse the factors that affect the customer experience in the supermarket industry during online ordering. The main research question and sub-questions have been defined as the specific aim of this research. The primary research question, sub-questions, hypotheses, and theoretical framework are presented systemically in this sub-section. There is a total of five sub-questions derived from the main research question. The sub-questions were helped in answering the main research question.

#### **3.2-1 Main Research Questions**

Main Research Question. What are the factors that impact customer experience in online ordering in the Supermarket industry?

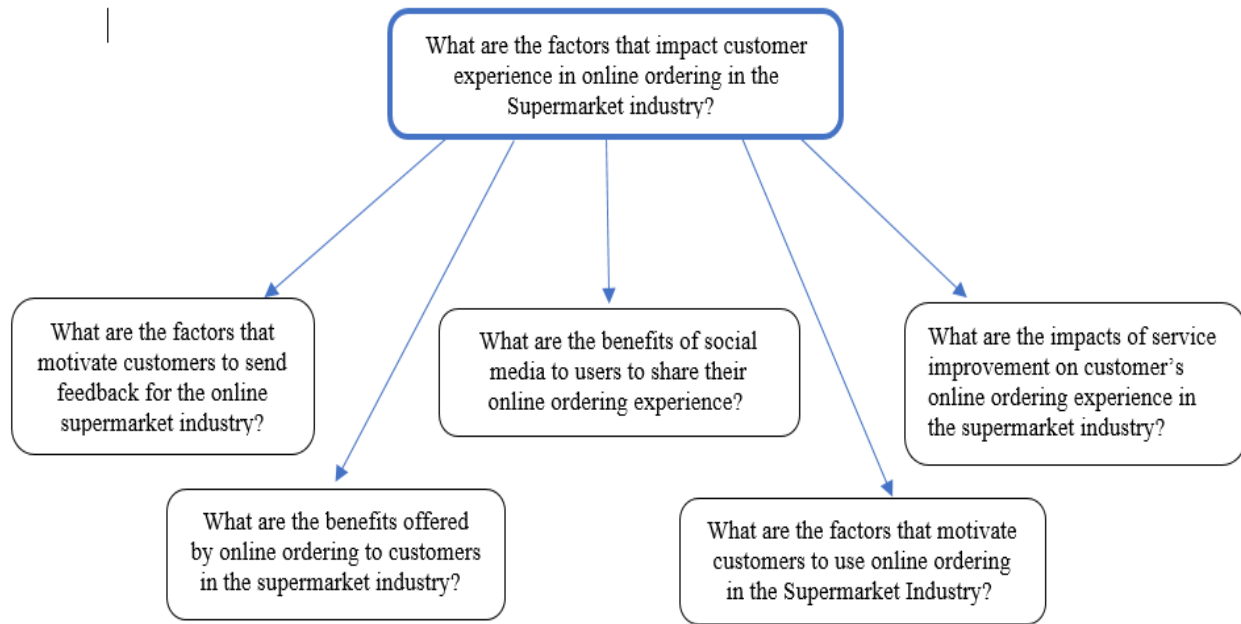
Sub-Question 1: What are the benefits offered by online ordering to customers in the supermarket industry?

Sub-Question 2: What are the factors that motivate customers to send feedback for the online supermarket industry?

Sub-Question 3: What are the benefits of social media to users to share their online ordering experience?

Sub-Questions 4: What are the factors that motivate customers to use online ordering in the Supermarket Industry?

Sub-Question 5: What are the impacts of service improvement on customer's online ordering experience in the Supermarket industry?



*Figure 5. Research questions*

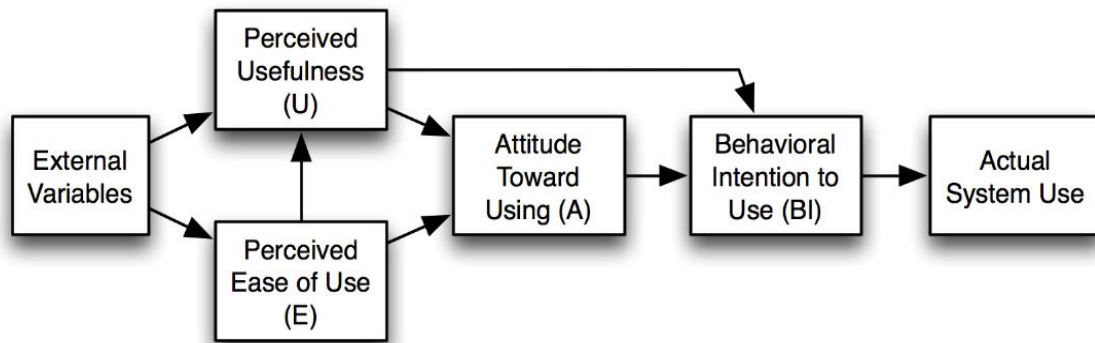
Figure 5 shows the main research question and sub-questions of this research. In this section, the research questions help to identify the factors that could cover the impacts of online shopping experience. The first sub-question investigates the offered benefits of online supermarket shopping by a company. The second sub-question investigates the factors that motivate customers to send feedback for online shopping from the supermarket. The third sub-question explores how social media helps online customers to share their ordering experience with others. The fourth sub-question helps to analyse the factors that inspire people to use online supermarket ordering services. Lastly, the fifth sub-question helps to examine the impact of online shopping service improvement on customer's experience in the supermarket industry.

### **3.3 Research model (Technology Acceptance Model)**

According to Normalini (2019), the Technology Acceptance Model (TAM) is the most widely known conceptual framework for research. The TAM model helps describe technology use behaviour and for an explanation, identifies, and predicts what would be unacceptable or acceptable for users. The TAM model is the most suitable model to investigate the user acceptance of online ordering in the supermarket industry (Ghani et al., 2017; Ashraf et al., 2014). This model is accepted as the most suitable model to understand the aspects that affect the acceptance of an

information system (IS). Perceived Usefulness (U) and Perceived Ease to Use (E) are major factors to describe user acceptance of an information system (Abdul, Narongsak, & Seigyoung, 2014).

Figure 6. below presents the original TAM model.



*Figure 6. Technology Acceptance Model (TAM) (Davis et al., 1989)*

The Technology Acceptance Model (TAM) describes the theoretical framework of research. However, the TAM model determines the impact of external variables on U and E (Al-Emran, Mezhuyev, & Kamaludin, 2018; Mushi, 2018). The study helps to identify that E has a positive effect on U. In the TAM model, research is also possible to identify the role of ASU and examine the U and E that have a favorable implication for BI (Ghani, Rani, Yasin, & Alnaser, 2017).

The original TAM model helps create any new modified model according to research (Viswanath, 2000). In Figure 7, a modified TAM model has been created for this research.

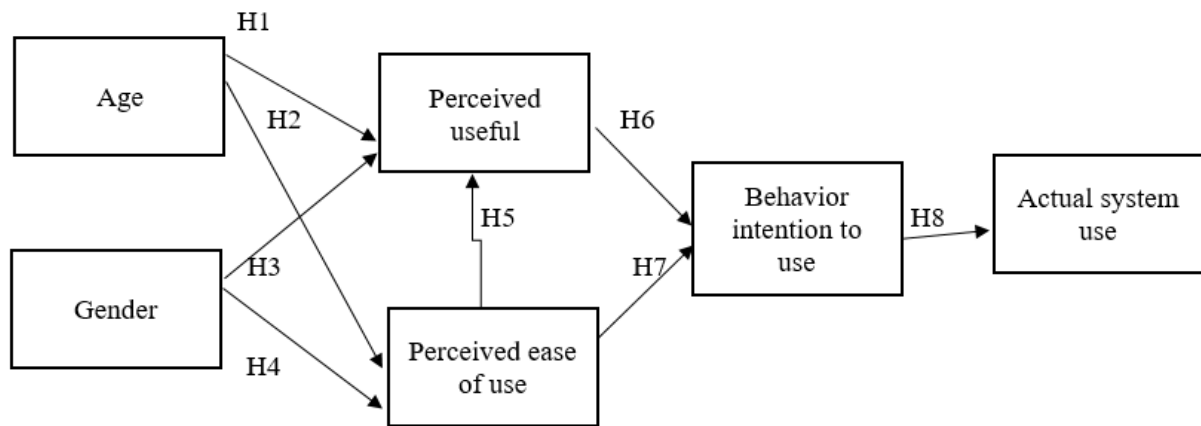


Figure 7. A modified TAM Model with three external variables (Researcher's work)

The Technology Acceptance Model (TAM) defines the relationship between the external variables with perceived usefulness (U) and perceived ease of use (E) and helps to identify the impact on behavioral intention (BI) that usage of encourages actual. There are two external variables in this research that age, gender. In this segment, these two variables have a positive impact on perceived usefulness (U) and perceived ease of use (E). Further, the perceived usefulness (U) and perceived ease of use (E) both have a positive effect on actual system use. In this research, according to these aspects, eight hypotheses are created through the modified TAM model (Davis, Bagozzi, & Warshaw, 1989; Viswanath, 2000). The purpose of this paper is to research the usefulness of online shopping within the supermarket industry and the impacts of the supermarket online shopping on customer experience. The TAM model reflects the description of online shopping being accepted by customers while shopping with the supermarket industry (Ashraf, Narongsak, & Seigyoung, 2014).

### **3.4 Hypotheses development**

A declaration, that predicts how a variable affects and relates each other and will be verified via research is known as hypotheses. Dependent and independent two types of variables are tested during hypotheses (Leavy, 2017; Kaur, 2017). In this report, according to the research questions, eight hypotheses were developed.

H1- Age has a positive impact on perceived useful

H2- Age has a positive impact on perceived ease to use

H3- Gender has a positive impact on perceived useful

H4- Gender has a positive impact on perceived ease to use

H5- Perceived ease of use has a positive impact on perceived useful

H6- Perceived useful has a positive impact on behavior intention to use

H7- Perceived ease of use has positive impacts on behavior intention to use

H8- Behavior intention to use has positive impacts on actual system use.

#### **3.4.1 H1- Age has a positive impact on perceived useful**

Hypotheses 1 (H1), Studies suggest that, age has a positive effect on the perceived usefulness of a technology (Hamidi & Mousavi, 2018). According to research, people who belong to different age groups use online ordering to purchase various available products. Online ordering is seen as a convenient way to buy items in the supermarket industry for various age groups. According to Siew-Lee and Yen-Nee (2017), people from all age groups prefer online ordering in the supermarket industry for various purposes. According to Wann-Yih and Ching-Ching (2015), people who belong to different age groups use online ordering to purchase various available products. Online ordering has seen as a convenient way to buy items in the supermarket industry for various age groups. There is not a specific gender or age group that tends to use online ordering, and overall, each generation likes to try and use this shopping technology.

#### **3.4.2 H2- Age has a positive impact on perceived ease of use**

Perceived ease to use one of the important factors in understanding toward acceptance of technology by individuals (Althunibat, 2015). Online ordering, as a convenient shopping method,



has a positive effect on perceived ease to use. According to Wann-Yih and Ching-Ching (2015), online supermarket ordering is famous for every generation worldwide within a few decades. Easy to use online ordering is another advantage for everyone.

### **3.4.3 H3- Gender has a positive impact on perceived useful**

Perceived usefulness is one of the important factors that impact the use of the latest technology (Y. Liu, Li, & Carlsson, 2010). SivaKumar and Gunasekaran (2017), defines that females are regular users of online ordering rather than males. Analyses of this research proved his statement, yes females use more online ordering than males.

### **3.4.4 H4- Gender has a positive impact on perceived ease to use**

Online ordering is perceived as easy to use for all age groups, males and females both agree with the notion. All gender like to use online ordering for shopping purposes in supermarket industry (Saha et al. 2020).

### **3.4.5 H5- Perceived ease of use has a positive impact on perceived useful**

Perceived ease of use denotes the indication of effortlessness during using a technology (Davis, 1989). Online ordering is beneficial for every gender and age group. According to study discussion, everyone can easily use online ordering because the use of online ordering is a convenient and straightforward technique to order things in the supermarket industry. In the past era, people had to visit the store physically for shopping. After online ordering technology, people can easily order products from anywhere, anytime (Anesbury et al., 2016).

### **3.4.6 H6- Perceived useful has a positive impact on behavior intention to use**

Perceived usefulness mentions measuring the enhancement of performance level by using a system (Davis, 1989). Online ordering is a useful technology to order products in the supermarket industry. People were taking full advantage of online ordering in the supermarket industry as a convenient shopping method (Charumathi & Rani, 2017). Therefore, the use of intension of online ordering in the supermarket industry is to buy products easily from anywhere, anytime.

### **3.4.7 H7- Perceived ease of use has positive impacts on behavior intention to use**

Online ordering comfortable to use, therefore why people use online ordering to obtain products in the supermarket industry (Aldousari et al., 2016). Therefore, from the literature above, the majority of people from all age groups and gender using it for marketing as a shopping tool.

Customers are not using online ordering for any other purpose in the supermarket industry. Most people prefer to use online ordering because it is easy to operate, and their primary intention behind online ordering is shopping goods electronically.

### 3.4.8 H8- Behavior intention to use has positive impacts on actual system use.

People use Online ordering as a shopping technique in the supermarket industry. Therefore, customers taking the actual benefits of online ordering (Jiaxiang & Xingyu, 2018). From discussion and literature above, people are having the same experience with online ordering as they expected, easy to use, and useful for shop online.

## 3.5 Research design

The research design is a procedure for knowledge and understanding of specific study problems. Through various research designs and methodologies, the author is able to obtain multiple outcomes for the same research project (Creswell & Creswell, 2018). There are mainly three steps contained in this research for data gathering and increase understanding about research, such as understand the research questions, data collection to answer questions, and data usage to find out a relevant solution (Ferreira et al., 2020; Viswanath, 2000). Initially, it was a plan for this research to finalize the research topic, identified a sufficient collection of peer-reviewed articles, then represent the purpose of the study, data gathering through an online survey, analyse the data, and finally finished a research report (Ferreira et al., 2020).

### 3.5.1 Hypotheses and Research Sub-questions

Table 6 represents a link between hypothesis and specific research sub-questions

Table 6. Which research sub-questions based on the hypothesis

<i>Sub-Question</i>	<i>Hypothesis</i>
<i>SQ1.</i>	H1, H3, H4
<i>SQ2.</i>	H2, H4, H5, H6
<i>SQ3.</i>	H4, H5, H7
<i>SQ4.</i>	H6, H7
<i>SQ5.</i>	H8

Table 9 describes which hypothesis is affected from which research sub-question. As shown in the table above, the first column represents the total number of research sub-questions. The second shows the hypotheses numbers.

### 3.5.2 Descriptive analysis

A descriptive analysis was done on the data received from an online survey. The hypotheses have not tested in this research. Because the author did not achieve a statistically significant survey, therefore the sub questions were investigated instead the hypotheses. In this research project, there are two types of analysis used to discover the meanings of the gathered data. Two forms for data analysis were applied: quantitative (Descriptive statistics) and qualitative (participant sub-group stories) methods in this research. After the survey, descriptive analysis was decided for the research due to a smaller number of survey responses, which is a total of 109.

### 3.5.3 Literature review with research questions, and survey questions

Table 7 below clarifies the connection between survey questions, literature review, and research questions. The first column of the table shows all research sub-questions, including the main research question. The second column represents the section number of literature review, and the third one defines the survey questions. This table helped the researcher to conduct systematic research that includes main research questions, sub-questions, literature review, and survey questions.

Table 7. *Link between research questions, literature review and survey questions*

Research Questions	Literature Review	Survey Questions
RQ 1	2.5, 2.6, 2.7	SQ3, SQ4, SQ5, SQ6, SQ11, SQ12, SQ13,
RQ 2	2.8, 2.8-1, 2.8-1.1, 2.8-1.2, 2.8-1.3, 2.8-1.4, 2.8-1.5, 2.8-1.6	SQ16, SQ17, SQ18
RQ 3	2.8-2	SQ9, SQ19, SQ20, SQ21
RQ 4	2.9, 2.9.1, 2.9.2, 2.9.3, 2.9.4, 2.9.5	SQ7, SQ8, SQ11, SQ12, SQ13
RQ 5	2.10	SQ14, SQ17

### **3.6 Reliability**

To determine reliability includes a measure to similar answers at different times to test for stability. High reliability indicates consistency and high stability. The single answer question type was used in the study as reliability is concerned with consistency. Reliability is not necessary for validity but sufficient condition for research. Reliability is characteristic of the best measurement (Zikmund et al., 2013). A six-point Likert scale was used as the only question type. The wording of the survey questions also includes stability. Questionnaires examined by the supervisors before developing the survey. To clarify that all questions were formed correctly without any mistakes. Reliability was also checked by IT (Information Technology) experts to make sure all technical queries and terms were expressed professionally.

### **3.7 Validity**

Validity denotes what it is planned to be measured and how exactly a method measures. The best measures include both accuracy and consistency. If research has the highest validity, this means it provides outcomes that link to real characteristics and real properties. A valid measurement indicated that the reliability is higher in research (Zikmund et al., 2013). Validity also contains how distinct and unique a measure is. The purpose of validity in this research is to know about the process and responses of survey questions. All survey questions are developed with the main research question, sub-questions, hypotheses, and the TAM model. So, validity is an integral part of identifying and guarantee the utilization of survey questions that determine the matters of significance.

To summaries, this section goals to identify the process of research and research reasons. The research objectives have been assessed, and implementation of the research main question and sub-questions were defined. Based on the research topic, the Technology Acceptance Model (TAM) was selected for this research.

### **3.8 Research method**

The research goal is to recognize the factors that can impact consumer experience with online shopping in the supermarket industry. This research has investigated customers' satisfaction level, benefits of social media, ordering methods, and users' contribution to company service improvement. Furthermore, this study has also defined a possible factor that can motivate customers to use and promote online shopping rather than offline shops (Pacheco & Garcia, 2012).

For this research, an online survey was used for data gathering because this is a reasonable method to obtain appropriate information within fixed time and budget (Zikmund et al., 2013). This survey was for three weeks, and there were 20 survey questions to gather information about online grocery shopping from participants. This online survey has elaborated on the use of Qualtrics software.

#### **3.8.1 Research approach**

According to Leavy (2017), the research approach is a procedure and plan that contains steps to detailed data collection, data analysis, and interpretation. The research approach is based on the nature of the research. There are three types of research approaches available according to research design. Because each research approach has its design features to describe specific research. These three approaches are 1. Quantitative, 2. Qualitative, and 3. Mixed Methods (Creswell & Creswell, 2018). A research approach selection depends on a research design that includes research methods, hypotheses, a range of data collection tools, techniques, data processing, and finally, defining the solution of the research problem. A selection of research approach is a decision that involves the researcher, which type of approach would be suitable to study a research topic (Creswell, 2013).

There are three main components of research approach philosophical world view, methods of research, and research design. The selection of a specific research approach depends on matching research methods and design (Zikmund et al., 2013). For example, a quantitative research approach contains quantitative research design, and quantitative analysis identified the connection between the variables. The quantitative research approach is most significant for this type of survey's numbering data.

A total of 75 journal articles were used for this research and the literature review. After the collection of papers and articles, the researcher has been able to start and complete this research. Table 8 presents the quantitative research approach to data analyses.

Table 8. *The relation between search aspects of the quantitative research approach*

<i>Research Aspect</i>	<i>Quantitative Research</i>
<i>Purpose</i>	Test specific research questions or Hypotheses
<i>Approach</i>	Test and Measure
<i>Data collection</i>	Structured responses
<i>approach</i>	Categories provided
<i>Research</i>	Researcher uninvolved observer.
<i>Independence</i>	Results are objective
<i>Samples</i>	Generalizable results
	Large samples to produce

### 3.8.2 Target population

The target population was six hundred people over the age of 18 who have used online ordering to do shopping from supermarkets. The total population of New Zealand is 4957400, according to StatsNZ (2019), the official website of the New Zealand government, but people who have age above 18 can only participate in this survey. Therefore, the population target 416000 was decided to determine the sample size.

### 3.8.3 Sample size

In quantitative research, the confidence level and confidence interval are two measures that affect the accuracy of data. To determine the sample size, both are necessary. The accuracy of an estimate is expressed by the confidence interval. The exact percentage value of the population picks an answer lies within the confidence represented through the confidence level (Maher, Markey, & Ebert-May, 2013). For the sample calculation, the website <http://wintec.aul.qualtrics.com>. an online tool used. A confidence interval of 4, and a confidence level of 95%, with over 416000 population, was used for this study. The image is given below in Figure 9 with the sample size.

**Determine Sample Size**

Confidence Level: ☒ 95% ☐ 99%

Confidence Interval:

Population:

Sample size needed:

Figure 8. Sample size determination for the survey - Source: (CreativeResearchSystems, n.d.)

The research has been conducted through the convenience nonprobability sampling method. The sampling unit of this research is one person over the age of 18 years who has used online ordering services in the supermarket industry while shopping as a customer.

### 3.8.4 Data gathering

The data was gathered through an online survey. For this online survey, the websites and social media sites were used to send the online survey link to participants. The online survey link was created after ethics approval from the Wintec Ethics Committee. The survey was available to participants for three weeks.

### 3.8.5 Identifies and explanation of questions

The following explains and describes the structure of the questions as well as questions in the survey.

#### Q1. Are you over the age of 18 years?

- Yes
- No

This question is a multiple-choice, single answer question, where the participant can only select one option, either yes or no. It is a compulsory question to continue this survey. The main motive of question 1 to identify participant age, only 18 years of participants, allow participating in this survey. Individuals under 17 years were not accepted because they are too young to join in the study.

**Q2. Which age group do you belong to?**

- 18-20
- 21-25
- 26-30
- 31-40
- 41-60
- Over 60

The question aims to identify the applicant age group. Question 2 is a multiple-choice, single answer question, where participants permitted to select only one age group between 18 years to over 60 years. The answer choices are 18-20, 21-25, 26-30, 31-40, 41-60, and 60 +.

**Q3. What is your gender?**

- Male
- Female
- Others
- Prefer not to answer

This question helps to find what gender participating in the research. Question 3 is a multiple-chosen single answer question. There are four options for people to select one male, female, and others. Prefer not to answer the opportunity for someone how is not interested in sharing this information.

**Q4. Do you prefer to do your shopping online?**

- Yes
- No
- Sometimes

This primary target of this question is to identify the interest of people in online supermarket shopping. Question 4 is a multiple-choice, single answer question with three options. Where participants can only pick one either yes, no, or sometimes.

**Q5. How often do you buy products online?**

- Up to once a week
- Once a week
- More than once a month



- Less than once a year

The purpose of this question is to analyse the frequent usage of online shopping by participants from supermarkets. The question is multiple-choice, single answer questions using four options for people.

**Q6. Do you think online shops and delivery services are convenient?**

**If yes, go to question no 6. If no, skip the survey. Thank you.**

- Yes
- No

This multiple-choice, single answer question linked to the rest of the survey. The main aim of this question to find out the participant online supermarket buying interest. The only Yes one can allow participants to continue this survey.

**Q7. Did your interaction with the company go according to your expectations?**

- Yes
- No
- Maybe

Question 7 is using a 3-point Likert scale to participate. This question aims to identify the relationship gap between online users and online supermarket businesses. Where to know participants think, are online supermarkets providing services according to their customer requirements or not.

**Q8. Overall, how satisfied are you with online supermarket services?**

- Strongly agree
- Agree
- Neutral
- Neither agree nor disagree
- Disagree
- Strongly disagree

The main goal of question 8 to identify participant satisfaction level, in their opinion, an online method can offer aid when buying from the supermarkets.

This question is similar to other questions like multiple-choice, single answer questions using a 6-point Liked scale to answer existing options for the participant.

**Q9. How would you rate your online ordering experience?**

- Excellent
- Very good
- Good
- Average
- Poor

Question 9 addresses the experience of the participants with online ordering and options if using online services can be beneficial to improve their interaction with online supermarket ordering.

This question is a multiple-choice, single answer question containing a 5-point Liked scale for reaction selections offered to the participant.

**Q10. What is the main reason for your shopping in online supermarkets?**

- To do a weekly shop
- To buy specific items
- For the party
- Others (Please specify)

Question 10 aims to find out the primary reasons for online supermarket ordering rather than offline shopping.

The question is a multi-choice single answer question, including a 4-point Likert scale for reply choices offered for participants. Additionally, there is an others comment option for participants to explain their opinions or their experiences on the matter of the question.

**Q11. How easy for you to use supermarket online shopping services?**

- Extremely easy
- Slightly easy
- Neither easy nor difficult
- Slightly difficult
- Moderately difficult
- Extremely difficult

Question 11 helps to identify how easy for people to do shopping from supermarkets via online sites according to their knowledge.

This question is a multi-choice single answer question as others, where an individual can select only one possibility according to their experience. There are total 6-point Likert scale options to measure their online shopping skills.

**Q12. How well does online supermarket services meet your requirements?**

- Extremely well
- Very well
- Some-what well
- Not so well
- Not well at all

The aim of question 12 is to identify the customer requirement completion level via online services from the supermarket.

This question is a multi-choice single answer question, with a 5-point Likert scale to measure online buyer satisfaction level regarding online supermarket ordering.

**Q13. How would you rate the quality of online supermarket products?**

- Very high quality
- High quality
- Neither high nor low quality
- Low quality
- Very low quality

The question verifies with the online customers the supermarket products' quality. This question is a multiple-choice single response question, according to the customer experience they may select one option to answer question 13.

**Q14. What is your experience with staff response about queries?**

- Extremely responsive
- Very responsive
- Not so responsive
- Not at all responsive

- Not applicable

This question identifies the experience and opinions of individuals about online supermarket staff are while using their services or any query regarding online ordering.

**Q15 Will, you repurchase the products from the same supermarket if you are satisfied with online service?**

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

This question is a multiple-choice, single answer question, including a 5-point Likert scale to answer the question. The main motive of this question to collect the participant opinions that relate to their further decisions. Where people can decide to select the same or different supermarket if they are satisfied with their online ordering services.

**Q16 How many times have you sent feedback to online supermarkets?**

- Always
- Usually
- Sometimes
- Rarely
- Never

This question identifies what people like to send or share with online supermarket companies according to their opinions and experience. Additionally, it verifies the period, like how many times the participant spent their time on feedback and also included not interested people in feedback. Question 16 is a multiple-choice, single answer question with a 5-point Likert scale to answer.

**Q17 Did you give any suggestions to online retailers to improve their customer services?**

- Yes
- No

Question 17 aims to collect data about the customer that likes to give suggestions regarding their online supermarket ordering services, where people interested in sharing their opinions in the form

of advice to online retailers to improve online services. This question is providing two options with yes or no for participants.

**Q18. Do you feel your responses could be useful for online supermarkets to improve their services?**

- Extremely useful
- Moderately useful
- Slightly useful
- Neither useful nor useless
- Do not know

Question 18 is a target to verify responses of participants what customers think like the type of reactions helpful for online supermarkets to enhance their electronic services. This question is a multiple-choice question with a single answer option. This question is an offer for participants to share their contribution to online supermarket businesses.

**Q19. Did you communicate with other customers about your satisfaction level with your online supermarket shopping?**

- Yes
- No

This question is a multiple-choice, single answer question with yes or no. Question 19 main target to analyse the customer communication interest with others regarding their supermarket shopping methods and what advice to others while online supermarket ordering.

**Q20. If yes, how did you communicate?**

- Social Media
- Phone
- Face to face
- Others (Please specify)

This question identifies what kind of methods or medias participants use to communicate with others to share their online shopping experience and where social media helps people to connect.

Additionally, there is a separate comment box option for the participant to further explain their answer in detail on the matter on the question.

**Q21. Would you recommend this supermarket to others for convenient online shopping?**

- Yes
- No
- Maybe

The last research question 21 verifies with the participant reviews what people think to reuse the previous supermarket industry while shopping with online media.

#### **4. Analysis**

Data analysis aims to arrange data in a group and in a meaningful way. In this research project, there are two types of analysis used to discover the meanings of the gathered data. Two forms for data analysis were applied: quantitative (Descriptive statistics) and qualitative (participant sub-group stories) methods in this research (Creswell & Creswell, 2018).

The researcher was expecting more than 200 survey responses and planned to do significant statistical analysis. After the survey, descriptive analysis was decided for the research due to a smaller number of survey responses, which is a total of 109 (Rajani & Nakhat, 2019). The primary purpose of descriptive statistics is to offer a brief description of the measures and samples and do it on a specific study. After data collection, the descriptive statistics used to analyse and organize the present data in a meaningful manner. (McKechnie & Fisher, 2019). After data analysis, the outcomes are shown in the form of tables, graphs, and charts. All quantitative data analysis included the main form of descriptive statistics (Rajani & Nakhat, 2019). In this study, descriptive statistical analysis is approximately defining what type of data study has been defined.

Before data analysis, the cleaning and editing of the data were necessary. Therefore, some steps were followed by the researcher for data cleaning, such as making a copy of data for cleaning trial, eliminate unrealistic responses, nonsensical feedback and remove duplicate responses (McKechnie & Fisher, 2019).

The quantitative analysis describes the process of converting raw and unprocessed data, such as mainly statistics, decimals, integers, and numbers into important information through logical thinking and employing critical (Creswell, 2013). The generalizability and validity of the outcomes based on the design of research with sampling methods and including type of analysis, which is applied while data gathering process. However, quantitative analysis is associated with finding research data that will support or not to hypotheses (Hetenyi, Lengyel, & Szilasi, 2019). All hypotheses that were related to this research were developed previously in the report. This form of calculation may include the frequencies, percentages, and other types of calculation. Qualitative analysis is used to study of non-numerical data, which collected by surveys, interviews, polls, or questionnaires. (Creswell, 2013).

In this report, an online Qualtrics tool was used for data collection purposes. The gathered data is investigated in the form of various graphs and tables. In this section, all recorded data first date

(20-March-2020) to end date (10-April-2020) of the survey presented with demographic. Descriptive analysis is used to analyse the data and divided it into groups and sub-groups. Additionally, the radar chart, bar graph, and pie charts are used to summarize the data.

#### 4.1 Frequency of online supermarket shopping by age groups.

Demographic results discuss the gender and age of the participant through descriptive statistics, and the researcher will discover valuable and meaningful data.

##### An examination of Survey Question 2:

Table 9. *Frequency of online supermarket shopping by all age groups*

Answer choice	Responses	%
18-20	14	13.08%
21-25	17	15.89%
26-30	31	<b>28.97%</b>
31-40	22	20.56%
41-60	13	12.15%
Over 60	10	09.35%

Table 9 illustrates the participants according to the age group. 14 (13.08%) were aged between 18-20 years of age. 17 (15.89%) were aged between 21-25, and 31 (28.97%) were aged between 26-30. 22 (20.56%) were aged between 31-40, and participants were aged between 41-60 13 (12.15%). 10 (9.35%) participants were over 60 years.



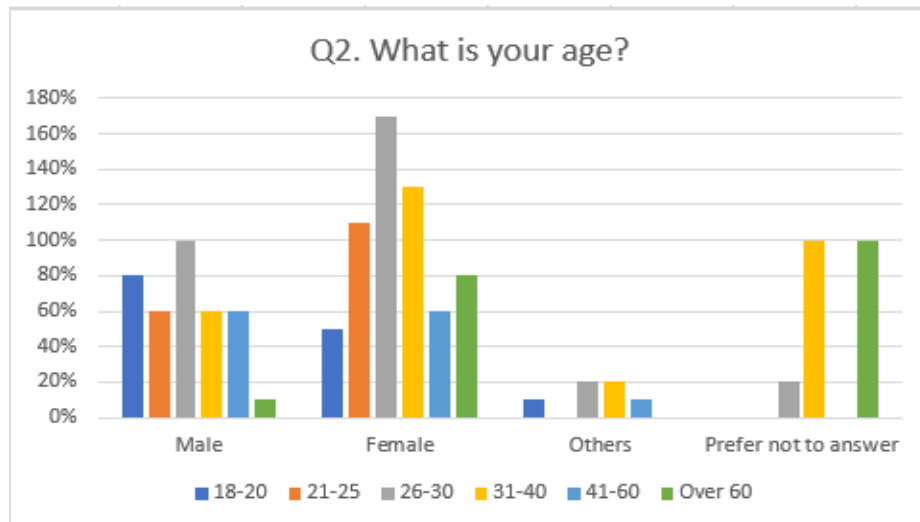


Figure 9. Frequency of online supermarket shopping by age groups

Figure 9 shows a graphical depiction of answers to question 2 by participant's gender. The bottom side of the graph shows the participants' age group in various colors. According to the graph, male and female participants of any age group like to do online shopping. Looking at the other side, the participant age group range 18-60+ and the participant's age group from 26 to over 60 not interested in response to this question.

## 4.2 Frequent use of online shopping by all participants

The following table shows the regular use of online shopping by participants.

### An examination of Survey Question 4:

Table 10. *Frequent use of online shopping by all participants*

Answer Choices	Responses	%
Yes	60	<b>56.60%</b>
No	7	06.60%
Sometimes	39	36.79%

Table 10 shows the frequency of online shopping for all participants. As described in table 56.60 % (60 participants), people like to do online shopping on a regular base. But, 6.60% (7) participants selected no option, and 36.79% (39) decided sometimes preference for online shopping.



Figure 10. Shows the frequent use of online shopping by all participants

This pie chart (Figure 10) illustrated the frequent use of online shopping for all participants. 57% of people stated yes, they have frequently used online shopping in the supermarket industry, along with 37% expressed maybe and the rest 6% showing no.

### 4.3 Selection of online products

This section defines the selection of online products by all participants. The first column of the table listed answer choices, and the next included number of responses with percentage.

#### An examination of Survey Question 5:

Table 11. Selection of online products by all participants

Answer choices	Responses	%
Up to once a week	15	14.15%
Once a week	31	29.25%
More than once a month	47	<b>44.34%</b>
Less than once a year	13	12.26%

Table 11 depicts the responses for question 5. 14.15% (15 participants) specified that online product ordering is used up to once a week, 29.25% (31 participants) indicated that online shopping is used once a week. With 44.34% (47 participants) pointed out that online product

shopping is done more than once a month, 12.26% (13 participants) not used often online methods for shopping purposes, which is less once a year.

#### 4.3.1 Selection of online products by gender

The following table 12 answers to question 5 grouped by gender such as male, female, other, and prefer not to answer option. The first column of the table defines all participants by gender, and the next four columns divided according to different periods, including total responses and percentages.

Table 12. *Selection of online products grouped by gender*

	Up to once a week		Once a week		More than a month		Less than once a year	
	Responses	%	Responses	%	Responses	%	Responses	%
Male	8	21.62%	11	29.72%	14	<b>37.84%</b>	4	10.81%
Female	7	11.67%	19	31.67%	25	<b>41.67%</b>	9	15.00%
Other	0	00.00%	1	16.67%	4	<b>66.67%</b>	1	16.67%
Prefer not to answer	0	00.00%	0	00.00%	4	<b>100.00%</b>	0	00.00%

As shown in table 12, 21.62% of male participants indicated that online product shopping is used up to once a week, with 11.67% of female participants also expressed that they buy products online up to once a week. 29.72% of male stating that the use of an online method for shopping once a week, with 31.67% of female participants are used online shopping with the same frequency, 16.66% of other participants also buy products online once a week. 37.84% of male participants reveal that online shopping frequency is more than a month, with 41.67% of female participants stated that are used online shopping more than a month, and 66.67% of other participants said the same thing. 10.81% of males reported that online product selection very rear less than once a year, with only 15% of female participants with less online shopping frequency, and 16.67% of other participants also preferred online shopping less than once a year.

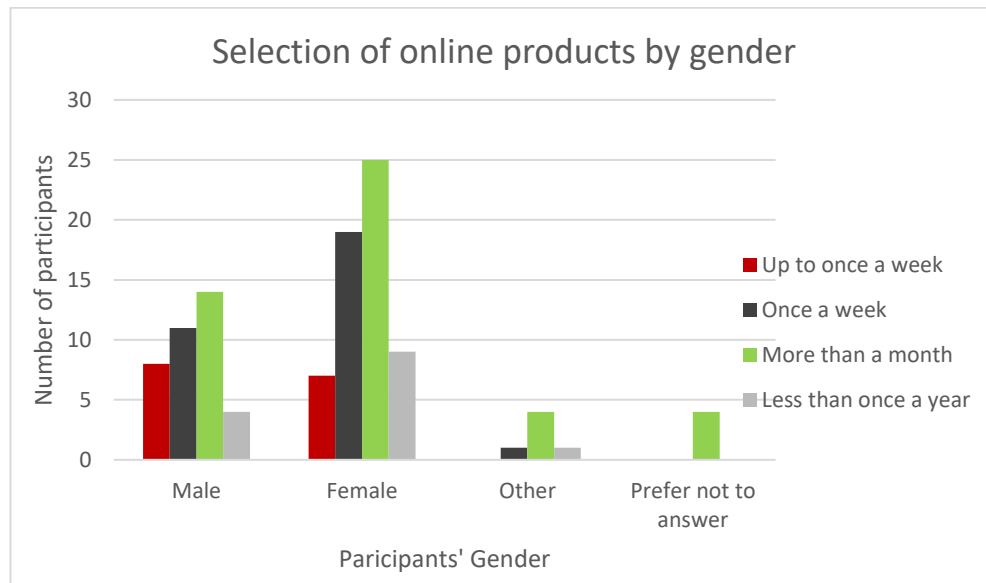


Figure 11. Depicts a selection of online products by gender

Figure 11 depicts a selection of online products by participants. The vertical axis shows the number of participants and horizontal shows participants' gender. Females used to select online items for more than a month as compared to other periods, which is higher in all participants. Next, males and females preferred to buy online products once a week, and some of those defined up to once a week.

Table 13. Selection of online products ordering grouped by male age group

Male	Up to once a week		Once a week		More than once a week		Less than once a year		Total	%
	Res.	%	Res.	%	Res.	%	Res.	%	Res.	100%
18-20	3	37.50%	3	37.50%	2	25.00%	0	00.00%	8	21.62%
21-25	3	<b>50.00%</b>	2	33.33%	1	16.67%	0	00.00%	6	16.22%
26-30	1	10.00%	2	20.00%	6	<b>60.00%</b>	1	10.00%	10	27.03%
31-40	0	00.00%	3	50.00%	3	50.00%	0	00.00%	6	16.25%
41-60	1	16.68%	0	00.00%	2	33.33%	3	<b>50.00%</b>	6	16.25%
Over60	0	00.00%	1	<b>100.00%</b>	0	00.00%	0	00.00%	1	2.70%
Overall	8	21.62%	11	29.37%	14	37.83%	4	10.81%	37	100%

Table 13 shows the use of online shopping by males in different age groups. 37.5% of males aged 18-20 indicated that they use online shopping in supermarkets up to once a week, and once a week, 25% of males of the same age prefer to do online shopping more than once a month. While 50% of

males age between 21-25 have stated that they are highly using online shopping on a weekly bases. 60% of males aged 26-30 reported that this age uses maximum online ordering once a month, and secondly, once a week. 50% of males in the 31-40 age group indicated that they like to do online supermarket shopping once a week and once a month with equal frequency. 50% aged between 41-60 show that they prefer to select an online method for shopping less than once a year, while 33.33% of males belong to the same age group use online shopping more than once a month. 100% of males aged over 60 specified that online shopping is more convenient to do once a week as compared to other periods.

Table 14. *Selection of online products ordering grouped by female age group*

Female	Up to once a week		Once a week		More than once a week		Less than once a year		Total	%
	Res.	%	Res.	%	Res.	%	Res.	%	Res.	100%
18-20	2	40.00%	2	40.00%	0	00.00%	1	20.00%	5	8.33%
21-25	3	27.27%	6	<b>54.55%</b>	1	09.09%	1	09.09%	11	18.33%
26-30	2	11.67%	7	41.18%	8	<b>47.06%</b>	0	00.00%	17	28.33%
31-40	0	00.00%	3	23.07%	8	<b>61.54%</b>	2	15.38%	13	21.66%
41-60	0	00.00%	1	16.67%	3	<b>50.00%</b>	2	33.33%	6	10.00%
Over60	0	00.00%	0	00.00%	5	<b>62.50%</b>	3	37.50%	8	13.33%
Overall	7	11.66%	19	31.67%	25	<b>41.67%</b>	9	15.00%	60	100%

Table 14 defines the answers collected from female candidates for question 5. As the table refers, 40% of females aged group 18-20 indicated that they buy products online during up to once a week and once a week. 54.55% of females between the aged group, 21-25 implied that they mostly use online shopping once a week. While 9% of females aged 21-25 prefer similar use of online shopping within more than a month and less than once a year. 61.54% of females aged 31-40 used online shopping in the supermarket industry more than a month as compared to more time frame that is higher, 50% of females aged 41-60 indicated the same responses. 62.50% of females aged over 60 only use online shopping while more than once a month, and 37.50% used that less than once a year.

#### **4.4 Participants' experience of online shops and delivery services**

An examination of question number 6.

Section 4.4 describes participants' personal experiences about online shops and delivery services. The first column shows two answer choices for participants, and the next one listed collected several responses in percentage.

Table 15. *Participants' experience of online shops and delivery services*

Answer choice	Responses	%
Yes	98	<b>91.58%</b>
No	9	08.41

Table 15 shows that 91.58% of participants said that yes, the online shops and delivery services are convenient, while 08.41% not agreed with this statement.

#### 4.4.1 Share experience about online shops and delivery services by gender

##### An examination of Survey Question 6

Table 16. *Participants' experience of online shops and delivery services*

	Yes		No		Total	%
	Res.	%	Res.	%	Responses	100%
Male	33	<b>89.18%</b>	4	10.81%	37	33.94%
Female	55	<b>91.66%</b>	5	08.33%	60	55.04%
Others	6	<b>100.00%</b>	0	00.00%	6	05.50%
Prefer not to answer	6	<b>100.00%</b>	0	00.00%	6	05.50%
Overall	100	91.74%	9	08.25%	109	100%

Table 16 number describes what people think about online shops and delivery. what they feel is these services are convenient for them or not. 89.18% of males stated that online shops and delivery are suitable for them, with 10.81% of males do not agree with this. 91.66% of females said that they are also happy with online shops and delivery services, while 8.33% of females expressed their reviews in negative form. The surprising data is that 100% of others identified that yes, online shops and delivery services are suitable for them, with 100% prefer not to answer provided the same statement.

Table 17. *Share experience with online shops and delivery services by females*

Female	Yes		No		Total	%
	Responses	%	Responses	%	Responses	100%
18-20	5	09.09%	0	00.00%	5	8.33%
21-25	10	18.18%	1	20.00%	11	18.33%
26-30	16	<b>29.09%</b>	1	20.00%	17	28.33%
31-40	13	23.64%	0	00.00%	13	21.67%
41-60	5	09.09%	1	20.00%	6	10.00%
Over 60	6	10.91%	2	<b>40.00%</b>	8	13.33%
Overall	55	91.67%	5	8.33%	60	100%

Table 17 represents the reviews regarding online shops and delivery services grouped by the female age group. 9.09% female aged 18-20 selected yes with the statement. 18.18% of females had an age between 21-25 specified that online shops and delivery facilities are suitable for them, but 20% of females did not agree with the statement. While 29.09% of females aged 26-30 also said online services are appropriate for them, with 20% of female gave response negatively. On the other side, 9.09% of female aged group 41-60 accepted that yes online ordering services for suitable for them, while 20% female belongs to the same age group mentioned no. 10.91% of females aged over 60 expressed online shopping, and delivery facilities are helpful, with 40% of females not agree with this declaration.

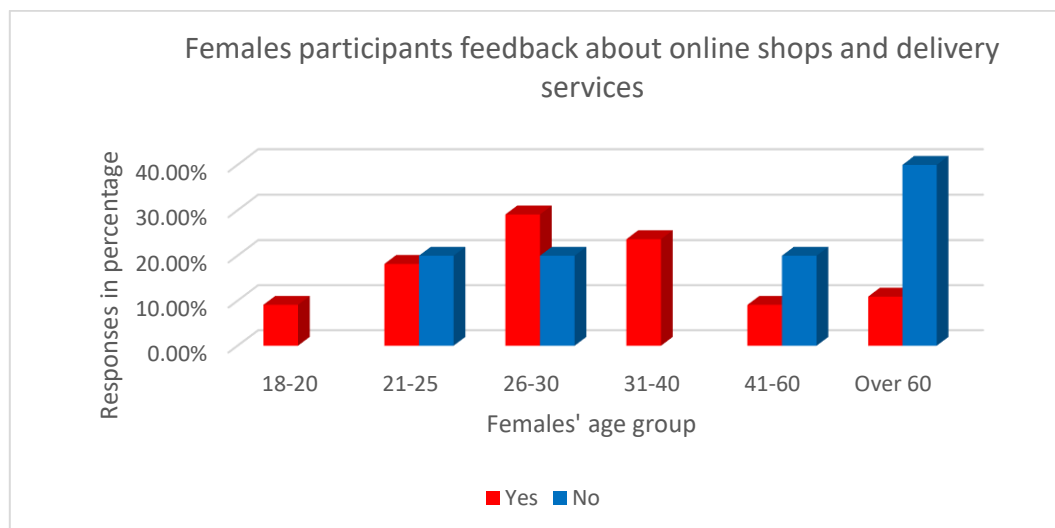


Figure 12. Represents female feedback about online shops and delivery services

Figure 12, the bar graph displays female participants' feedback about online shops and delivery services. 18-20, of females age group, said that online services are very convenient; there is no dissatisfaction within this age Grouped. Females' age group 21-25 stated almost equal response in both statements. On the other side, 26-30 of the female age group provided positive reactions toward online shops and sending services Rather than negative responses. Age group 31-40 of females expressed that they do not have any complaints about online facilities. Females participants how are over 60 show that they are not satisfied enough with online shops and delivery services. Therefore, this bar graph shows a clear review of female participants.

#### 4.5 Experience of participants with company interaction

The following tables of this section show the participants interact with a company or experience of participants with company interaction.

##### An examination of Survey Question 7:

Table 18. *Experience of participants with company interaction go according to expectations*

Answer choices	Responses	%
Yes	41	<b>43.16%</b>
No	12	12.63%
Maybe	42	44.21%

Table 18 depicts data of all participants, 43.16% (or 41 participants) selected yes response that their interaction with the company goes according to their expectations. 12.63% (or 12 participants) said that they do not agree with this declaration. On the other hand, 44.21% of participants do not have any idea about it.





*Figure 13. Represents participants' experience with company interaction*

A pie chart (figure 13) shows that 44% of participants selected that they do not have any idea about company interaction or company working according to their expectations, the second 43% people believe yes, they could accept the company goes according to their expectations.

However, 13% of candidates still specified that company interaction was not going according to their suggestions.

*Table 19. Participants interaction with company grouped by gender*

	Yes		No		Maybe		Total	%
	Responses	%	Responses	%	Responses	%	Responses	100%
Male	18	43.90%	4	33.33%	10	23.81%	32	33.68%
Female	20	48.78%	4	33.33%	30	71.43%	54	56.84%
Others	1	02.44%	3	25.00%	2	04.76%	6	6.31%
Prefer not to answer	2	04.88%	1	08.33%	0	00.00%	3	3.15%
Overall	41	43.16%	12	12.63%	42	44.21%	95	100%

Table 19 shows data of all contestants how are used to communicate with online companies and share their experiences. The first row defines the genders and fist column divided into answer choices. 48.78% of females agree with the statement on customer interaction with the company, which is highest as compared to the other genders. 33.33% of males and females equally expressed that their communication with the company is not going as well as they expected. 71.43% of

females said that they are not interested in how's a company working, and 23.81% of males also answered as females provided.

#### 4.5.1 Experience of participants with company interaction

Table 20. *Participants interact with a company by males' participants*

	18-20	%	21-25	%	26-30	%	31-40	%	41-60	%	Over 60	%	Total	%
Yes	3	<b>42.85%</b>	5	<b>83.33%</b>	4	<b>50.00%</b>	3	<b>60.00%</b>	3	<b>60.00%</b>	0	00.00%	18	56.25%
No	2	28.57%	0	00.00%	0	00.00%	1	20.00%	0	00.00%	1	<b>100.00%</b>	14	12.5%
Maybe	2	28.57%	1	16.66%	4	<b>50.00%</b>	1	20.00%	2	40.00%	0	00.00%	10	31.25%
Overall	7	21.87%	6	18.75%	8	25.00%	5	15.62%	5	15.62%	1	3.12%	32	100%

Table 20 illustrates 42.85% of males stated that their interaction with a company was working according to expectations. 83.33% of male participants aged between 21-25 experienced that a company interaction goes according to their expectations. 28.57% of males aged 18-20 replied that a company interaction is not going according to their expectations, along with 20% of males aged 31-40 agree with the notion. Most 50% of males aged within 26-30 select maybe the option to express their response.

Table 21. *Participants interact with a company by females' participants*

	18-20	%	21-25	%	26-30	%	31-40	%	41-60	%	Over 60	%	Total	%
Yes	2	<b>40.00%</b>	7	<b>70.00%</b>	6	40.00%	5	38.46%	0	00.00%	0	00.00%	20	37.04%
No	1	20.00%	1	10.00%	1	06.66%	1	07.69%	0	00.00%	0	00.00%	4	7.41%
Maybe	2	<b>40.00%</b>	2	20.00%	8	<b>53.33%</b>	7	<b>53.84%</b>	5	<b>100.00%</b>	6	<b>100.00%</b>	30	55.55%
Overall	5	39.26%	10	18.52%	15	27.78%	13	24.07%	5	9.26%	6	11.11%	54	100%

Table 21 displays 40% of females aged between 18-20 expressed that a company interaction goes according to their expectations. In comparison, 20% of those said that a company is not working as

they expected, and the rest 40% replied maybe. Participants aged 21-25 revealed 70% of females think yes, business is working according to their hope. 100% of females aged within 41-60 selected maybe because they did not have any idea about company performance, along with 100% of females Over 60.

#### 4.6 Satisfied with online supermarket services

##### An examination of Survey Question 8:

In this section, the participant satisfaction level is defined. How the participant expressed their satisfaction average about online shopping services. The purpose of this section is to recognize the people how used to do shopping online and examined their satisfaction level.

Table 22. *Satisfied with online supermarket services*

Answer choices	Responses	%
Strongly agree	16	16.84%
Agree	38	<b>40.00%</b>
Neutral	35	36.84%
Neither agree nor disagree	6	06.32%
Disagree	0	00.00%
Strongly disagree	0	00.00%

As defines in table 22, 40% of the people stated that they are agreeing to satisfy with online supermarket services. Only 06.32% of participants expressed neither agree nor disagree with the statement.

Table 23. *Satisfied with online supermarket services by gender*

	Female	%	Male	%	Others	%	Prefer not to answer	%
Strongly agree	9	16.66%	7	21.87%	0	00.00%	0	00.00%
Agree	24	<b>44.44%</b>	11	34.37%	1	16.67%	2	66.67%
Neutral	18	33.33%	12	<b>37.50%</b>	4	<b>66.66%</b>	1	33.33%
Neither agree nor disagree	3	05.05%	2	06.25%	1	16.67%	0	00.00%

Disagree	0	00.00%	0	00.00%	0	00.00%	0	00.00%
Strongly disagree	0	00.00%	0	00.00%	0	00.00%	0	00.00%

56.25% of female candidates indicate they strongly agree and satisfied with online supermarket services. Followed by 63.16% of females also agree, where 51.43% of females and 34.29% of males natural about online supermarket facilities are satisfied. While 50% of females and 33.33% of males neither agree or nor disagree, no clear statement toward online supermarket services. 11.43% of others and 2.86% prefer not to answer participants' claim that online supermarket services are neutral.

#### 4.6.1 Satisfied with an online supermarket service

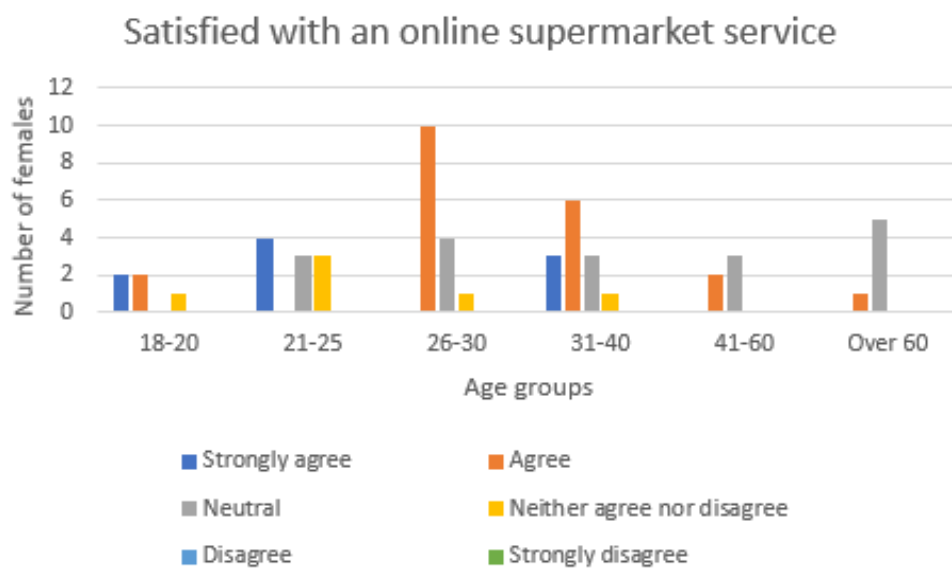
In table 24, the first row describes the female participants' age group, and the second first column represents the different options to measure the participants' online ordering satisfaction level, the next six-columns show the contestants' responses and the percentage.

Table 24. *Satisfied with an online supermarket service by females age group*

Female	18-20	%	21-25	%	26-30	%	31-40	%	41-60	%	Over 60	%
Strongly agree	2	<b>40.00%</b>	4	<b>40.00%</b>	0	00.00%	3	23.08%	0	00.00%	0	00.00%
Agree	2	<b>40.00%</b>	0	00.00%	10	<b>66.67%</b>	6	<b>46.15%</b>	2	40.00%	1	16.67%
Neutral	0	00.00%	3	30.00%	4	26.67%	3	23.08%	3	<b>60.00%</b>	5	83.33%
Neither agree Nor disagree	1	20.00%	3	30.00%	1	6.67%	1	7.69%	0	00.00%	0	00.00%
Disagree	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%
Strongly disagree	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%

Table 24 illustrates answers from female candidates. 40% of females aged between 18-20 strongly agree and agree they are satisfied with online supermarket services. While 20% of females neither agree or nor disagree on online supermarket facilities. Participants aged 21-25 specify that 40% of

females strongly agree, while 30% indicate agree and remaining 30% state neither agree nor disagree with online supermarket services. 66.67% of females aged between 26-30 agree on online supermarket facilities are satisfied. 26.67% of female participants aged 26-30 respond neutral and 6.67% expressed neither agree nor disagree with online supermarket services are satisfied. 23.08% of people aged 31-40 strongly agree that they are satisfied, while 46.15% defined that agree, and 23.08% of female satisfaction level is neutral on online supermarket services. At most, with 60% of females aged 41-60 answered neutral, the rest of the 40% agree that electronic supermarket ordering services are satisfied. The last column of the table shows 16.67% of over 60s satisfied, and the remaining 83.33% go toward neutrally satisfied with online supermarket services.



*Figure 14. Satisfied with an online supermarket service by females*

Figure 14 displays the satisfaction level of female participants with online supermarket services by age groups. Females aged between 26-30 defined that they agree online supermarket services satisfied them through their services, some of those indicate neutral. Females aged within 21-25 stated strongly agree that they are satisfied with online supermarket services.

*Table 25. Satisfied with an online supermarket service by males age group*

Male	18-20	%	21-25	%	26-30	%	31-40	%	41-60	%	Over 60	%	Total	%
Strongly agree	6	85.71%	1	16.67%	0	00.00%	0	00.00%	0	00.00%	0	00.00%	7	21.87%
Agree	1	14.29%	3	50.00%	2	25.00%	3	60.00%	2	40.00%	0	00.00%	11	34.37%

Neutral	0	00.00%	2	33.33%	6	<b>75.00%</b>	1	20.00%	3	<b>60.00%</b>	0	00.00%	12	37.5%
Neither agrees Nor disagree	0	00.00%	0	00.00%	0	00.00%	1	20.00%	0	00.00%	1	<b>100.00%</b>	2	6.25%
Disagree	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%	-	-
Strongly disagree	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%	-	-
Overall	7	21.87%	6	18.75%	8	25.00%	5	15.62%	5	15.62%	1	3.12%	32	100%

As describes in Table 25, males aged between 18-20 indicate that 85.71% strongly agree with online supermarket services satisfaction, while the remaining 14.29% agree they are satisfied. Males aged 21-25 show that 16.67% strongly agree, and 50% agree on electronic supermarket facilities' satisfaction. 33.33% of males expressed a neutral response. 75% of males aged 26-30 participants defined their satisfaction level neutral toward online supermarket services, while the remaining 25% agree. Male aged 31-40, 60% of people with strongly agree, while remaining shows a 50-50 split, which is a total 40% half neutral and a half with neither agree nor disagree. Aged group 41-60 of males stated that 60% of male neutrally satisfied and 40% agree with online supermarket services are satisfied. At most, 100% of over 60s neither agree or nor disagree.

## 4.7 Share an online ordering experience

### An examination of Question number 9

Table 26. *Share online ordering experience by all participants*

Answer choices	Responses	%
Excellent	15	15.96%
Very good	28	29.79%
Good	35	<b>37.23%</b>
Average	16	17.02%
Poor	0	00.00%

Table 26 shows the responses from all participants. 15.96% of participants shows excellent online ordering experience. Next, 29.79% expressed a very good feel with online ordering. However,

37.23% of participants shared they had a good experience with online shopping, while 17.02% of people represented average level experience with online order.

Table 27. *Share online ordering experience by gender*

	Excellent		Very good		Good		Average		Poor	
	Responses	%	Responses	%	Responses	%	Responses	%	Responses	%
Male	4	12.90%	11	<b>35.48%</b>	11	<b>35.48%</b>	5	16.13%	0	00.00%
Female	8	14.81%	15	27.78%	24	<b>44.44%</b>	7	12.96%	0	00.00%
Others	1	16.67%	0	00.00%	2	33.33%	3	<b>50.00%</b>	0	00.00%
Prefer not to answer	2	66.67%	0	00.00%	0	00.00%	1	33.33%	0	00.00%

Table 27 depicts that 12.90% of male participants and 35.48% of female participants show an excellent experience with online shopping, along with 16.67% of others, and 66.67% of prefer not to answer expressed similar responses. Furthermore, 35.48% of male and 27.78% of females has very good experience with electronic shopping. While 35.48% of males and 44.44% of females shared their good online shopping experiences, 33.33% of others have a good experience too. On another side, 16.13% of male and 12.96% of females shows average experience level in online shopping, with 50% of others and 33.33% of participants with prefer not to answer also stated their collective knowledge about online shopping.

Table 28. *Share an online ordering experience by male age group*

Male	Excellent		Very good		Good		Average		Poor		Total	%
	Res.	%	Res.	%	Res.	%	Res.	%	Res.	%	Res.	100%
18-20	3	42.86%	4	<b>57.14%</b>	0	00.00%	0	00.00%	0	00.00%	7	22.58%
21-25	0	00.00%	3	<b>50.00%</b>	3	<b>50.00%</b>	0	00.00%	0	00.00%	6	19.35%
26-30	1	12.50%	0	00.00%	4	<b>50.00%</b>	3	37.50%	0	00.00%	8	25.80%
31-40	0	00.00%	2	<b>40.00%</b>	2	<b>40.00%</b>	1	20.00%	0	00.00%	5	16.13%
41-60	0	00.00%	1	25.00%	2	<b>50.00%</b>	1	25.00%	0	00.00%	4	12.90%
Over 60	0	00.00%	1	<b>100.00%</b>	0	00.00%	0	00.00%	0	00.00%	1	3.22%
Overall	4	12.90%	11	35.48%	11	35.48%	5	16.13%	-	-	31	100%

Table 28 depicts that males within the age of 18-20 all expressed that excellent and very good knowledge about online shopping. While all males aged 21-25 show very good with 50%, and the remainder 50% selected good online ordering experience. Furthermore, males aged 26-30 answered that 12.50% indicated excellently, 50% good, and 37.50% of participants were average online shopping experience. 40% of males aged 31-40 convey very good experience, a similar percentage with good and remaining 20% average level of online shopping experience. 50% of males aged between 41-60 shows good experience level, where 25% very good, and last 25% with average knowledge toward online ordering. Most with 100% of males aged over the 60s expressed very good experience with online shopping.



*Figure 15.* Share an online ordering experience by males

This bar graph shows the experience of online ordering in the supermarket industry by male participants age groups. The vertical axis shows the number of males and the horizontal axis shows different age groups. Most male participants aged from 18 to 30 had 57.14% of very good and 50% of good experience with online ordering services in the supermarket industry.



Table 29. *Share an online ordering experience by female age group*

	Excellent		Very good		Good		Average		Poor		Total	%
	Res.	%	Res.	%	Res.	%	Res.	%	Res.	%	Res.	100%
18-20	1	20.00%	1	20.00%	2	<b>40.00%</b>	1	20.00%	0	00.00%	5	9.25%
21-25	4	<b>40.00%</b>	3	30.00%	2	20.00%	1	10.00%	0	00.00%	10	18.52%
26-30	2	13.33%	6	40.00%	7	<b>46.67%</b>	0	00.00%	0	00.00%	15	27.78%
31-40	1	7.69%	5	38.46%	5	38.46%	2	15.38%	0	00.00%	13	24.07%
41-60	0	00.00%	0	00.00%	3	<b>60.00%</b>	2	40.00%	0	00.00%	5	9.25%
Over 60	0	00.00%	0	00.00%	5	<b>83.33%</b>	1	16.67%	0	00.00%	6	11.11%
Overall	8	14.81%	15	27.78%	24	44.44%	7	12.96%	-	-	54	100%

Table 29 depicts, 20% of females aged 18-20 excellent experience with online shopping, a similar percentage of females with very good and average knowledge about online ordering. While the remaining 40% indicated, they are with an excellent online experience. The majority of 40% of females aged 21-25 defined excellent experience with online shopping. 46.67% of participants belong to age group 26-30 show a good knowledge of electronic ordering. 38.46% of females aged 31-40 said that similar levels of experience as very good and good with online shopping. Most 60% of females belong to age group 41-60 expressed good experience, while 40% of them an average level of online shopping experience. In the last row, all females aged over the 60s indicated good online ordering experience by 83.33% and average by 16.67%.

## 4.8 Reasons for shopping in online supermarkets

### An examination of Question number 10

Reasons for doing online shopping are listed in table 30 according to participants' responses. The first column of Table 30 shows the answer choices, and the next column displays how many participants were used online shopping due to specific reasons. The participants' answers define responses and percentages.

Table 30. *Reasons for shopping in online supermarkets*

Answer choices	Responses	%
To do a weekly shop	20	21.28%
To buy specific items	55	<b>58.51%</b>
For party	18	19.15%
Others	1	01.06%

21.28% of participants used online supermarkets shopping services weekly. 58.51% of people selected supermarkets were shopping online if they want to buy specific items. For a party purpose, 19.15% (18 participants) of candidates decided to go with online supermarket ordering. On the other side, only 01.06% of responses are recorded for other reasons.

Table 31. *Reasons for shopping in online supermarkets by gender*

	To do a weekly shop		To buy a specific item		For party		Others		Total	%
	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Responses	100%
Male	9	28.13%	17	<b>53.12%</b>	6	18.75%	0	00.00%	32	34.04%
Female	11	20.75%	31	<b>58.49%</b>	10	18.86%	1	01.88%	53	56.38%
Others	0	00.00%	4	<b>66.67%</b>	2	33.33%	0	00.00%	6	06.38%
Prefer not to answer	0	00.00%	3	<b>100.00%</b>	0	00.00%	0	00.00%	3	03.19%
Overall	20	21.28%	55	58.51%	18	19.15%	1	01.06%	94	100%

Males were selected shopping in online supermarkets by 9 (28.13%) for a weekly shop. However, 53.12% decided to use online supermarket shopping to buy specific items. While any party, 18.75% of males preferred ordering in electronic supermarkets. 20.75% of females picked an online shopping technique due to a weekly shop. 58.49% of females like to bring a specific item from online supermarkets. 66.67% of others chosen online shopping to buy a specific item, where others 33.33% of people for a party. Prefer not to answer participants said that they used to online ordering in supermarkets only to buy a specific item by 100%.

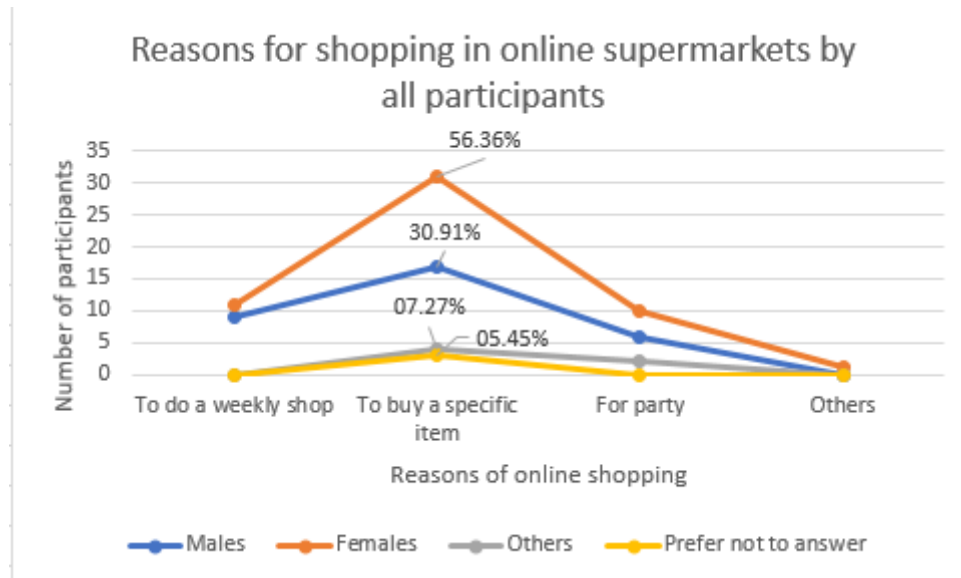


Figure 16. Reasons for shopping in online supermarkets by gender

This line graph represents the different reasons for online shopping in the supermarket industry by gender. The blue line shows males, orange shows females, the gray line shows others, and yellow line shows prefer not to answer participants. The vertical axis displays the number of participants, and horizontal illustrates various motives for online shopping. Most 56.36% of females, and 30.91% of males preferred to do online shopping to buy a specific item in the supermarket industry.

Table 32. Reasons for shopping in online supermarkets by males age group

Male	To do a weekly shop		To buy specific items		For party		Others		Total	%
	Res.	%	Res.	%	Res.	%	Res.	%	Res.	100%
18-20	2	28.57%	5	<b>71.43%</b>	0	00.00%	0	00.00%	7	22.58%
21-25	2	33.33%	4	<b>66.67%</b>	0	00.00%	0	00.00%	6	19.35%
26-30	2	25.00%	4	<b>50.00%</b>	2	25.00%	0	00.00%	8	25.80%
31-40	1	20.00%	3	<b>60.00%</b>	1	20.00%	0	00.00%	5	16.12%
41-60	2	40.00%	0	00.00%	3	<b>60.00%</b>	0	00.00%	5	16.12%
Over 60	0	00.00%	0	<b>100.00%</b>	0	00.00%	0	00.00%	-	-
Overall	9	29.03%	16	51.61%	6	19.35%	-	-	31	100%

Table 32 reveals that 28.51% of males aged 18-20 to do weekly shop from an online supermarket and the other 71.43% state that they also used online supermarket shopping to buy a specific item. In the case of a 2-25 aged group, 33.33% of male selected online supermarket for weekly ordering, and remainder 66.67% to buy specific items. 25% of males aged between 26-30 used to select online supermarkets for weekly shopping, and the same number of male participants used to do party shopping online. While 50% of male belongs to the same age group, buy a specific item from an online supermarket. While aged group 31-40, 20% of male participants said that they used online supermarkets weekly to buy a specific item chosen by 60% and the other 20% for party reasons. Male aged 41-60, selected online supermarket for the weekly shop and the remaining 60% to buy specific items online. 100% of males aged over the 60s expressed that they decided to use online supermarkets to buy specific items.

Table 33. *Reasons for shopping in online supermarkets by females age group*

Female	To do a weekly shop		To buy specific items		For party		Others		Total	%
	Res.	%	Res.	%	Res.	%	Res.	%	Res.	100%
18-20	3	<b>60.00%</b>	1	20.00%	1	20.00%	0	00.00%	5	8.47%
21-25	2	20.00%	5	<b>50.00%</b>	3	30.00%	0	00.00%	10	16.94%
26-30	4	26.67%	8	<b>53.33%</b>	2	13.33%	1	06.67%	15	25.42%
31-40	2	15.38%	10	<b>76.92%</b>	10	07.69%	0	00.00%	22	37.28%
41-60	0	00.00%	2	40.00%	0	<b>60.00%</b>	0	00.00%	2	3.38%
Over 60	0	00.00%	5	<b>100.00%</b>	0	00.00%	0	00.00%	5	8.47%
Overall	11	18.64%	31	52.54%	16	27.12%	1	1.69%	59	100%

Table 33 shows the list of female participants how's relate to a particular age group share their motive behind the selection of online supermarkets. 60% (3 participants) of females aged 18-20 stated that they do weekly shop online, and 20% selected online supermarket shopping to buy specific items and the other 20% for the party. 20% of those aged 21-25 accepted to use online supermarket for a weekly shop, while the rest 50% for a specific item and 30% of them for party related ordering purposes. Participants aged 26-30 revealed 26.67% of females decided to use online supermarkets for a weekly shop, to buy a specific item by 53.33%, for a party by 13.33%, and only 06.67% of females for other reasons. 15.38% of females aged within 31-40 stated that

they are used to do weekly shop online, while 76.92% of this age group selected to buy a specific item as well. 07.69% of females from the same age group chosen online supermarket shopping for a party. 40% of female participants of those aged 41-60 claim that they are selected online supermarket to buy a specific item, while the other 60% of those for a party. Lastly, 100% of females aged over the 60s used to do shopping online due to one reason, which is to buy a specific item.

#### 4.9 Use of supermarket online shopping services

##### An examination of Question 11.

In this section, table 34 defined the responses of all participants toward easiness use of supermarket online shopping services. The answer choices for the candidate listed in the first column and the next column shows how many participants experienced that supermarket online shopping services are comfortable or not. The participants' answers define responses and percentages.

Table 34. *Use of supermarket online shopping services by all participants*

Answer choices	Responses	%
Extremely easy	18	18.95%
Slightly easy	48	<b>50.53%</b>
Neither easy nor difficult	23	24.21%
Slightly difficult	4	04.21%
Moderately difficult	1	01.05%
Extremely difficult	1	01.05%

18.95% (18 participants) stated that online supermarket shopping services are extremely easy, just over half, at 50.53% of participants experienced slightly easy. Twenty-three participants (24.21%) selected neither easy nor difficult, with 04.21% of candidates said that to use online supermarket ordering facilities are slightly difficult. The use of online supermarket online shopping services is moderately difficult by 01.05% (1) of participants. At last, a similar number of people expressed extremely difficult use of supermarket online shopping facilities.

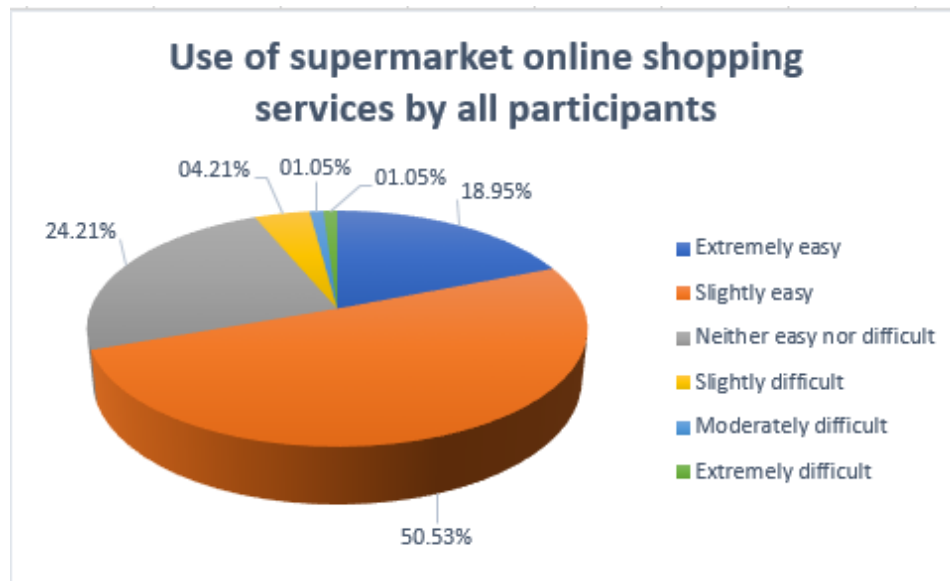


Figure 17. Use of supermarket online shopping services for all participants

This pie chart shows the use of supermarket online shopping services for all participants. As displayed in this chart, 50.53% of people expressed that slightly easy to use supermarket online shopping services, while 24.21% of those experienced neither easy nor difficult. On the other hand, 04.21% of participants practiced the supermarket online shopping services as slightly difficult.

Table 35. Use of supermarket online shopping services by gender

	Male		Female		Others		Prefer not to answer		Total	%
	Res.	%	Res.	%	Res.	%	Res.	%	Res.	100%
Extremely easy	7	21.87%	9	16.98%	1	20.0%	1	33.33%	18	19.35%
Slightly easy	<b>18</b>	<b>56.25%</b>	27	<b>50.94%</b>	2	<b>40.00%</b>	1	33.33%	48	51.61%
Neither easy Nor difficult	5	15.62%	15	28.30%	2	<b>40.00%</b>	1	33.33%	23	24.73%
Slightly difficult	2	06.25%	2	03.77%	0	00.00%	0	00.00%	4	4.30%
Moderately difficult	0	00.00%	0	00.00%	0	00.00%	0	00.00%	-	-
Extremely Difficult	0	00.00%	0	00.00%	0	00.00%	0	00.00%	-	-
Overall	32	34.40%	53	56.98%	5	5.37%	3	3.22%	93	100%

For 50% of females, online shopping services are extremely easy to be used, while 38.89% of males also support the notion. 56.25% of females and 37.50% of male participants said that slightly easier to use supermarket online shopping services. 21.74% of males and 65.22% of females revealed neither easy nor difficult to use supermarket online ordering services. Slightly difficult to use experienced by 50% of males and 50% of females. Lastly, 100% of females replied that the use of online supermarket shopping services is moderately difficult for them. On the other side, 100% of other participants agreed with extremely difficult.

Table 36. *Use of supermarket online shopping services by males age group*

Male	Responses		Responses		Responses		Responses		Responses		Responses		Total	%
	18-20	%	21-25	%	26-30	%	31-40	%	41-60	%	Over 60	%	Responses	100%
Extremely easy	3	<b>42.86%</b>	2	33.33%	0	00.00%	1	20.00%	1	20.00%	0	00.00%	7	21.87%
Slightly easy	3	<b>42.86%</b>	4	<b>66.67%</b>	6	<b>75.00%</b>	3	<b>60.00%</b>	2	<b>40.00%</b>	0	00.00%	18	56.25%
Neither easy Nor difficult	1	14.28%	0	00.00%	1	12.50%	0	00.00%	2	<b>40.00%</b>	1	00.00%	5	15.62%
Slightly difficult	0	00.00%	0	00.00%	1	12.50%	1	20.00%	0	00.00%	0	<b>100.00%</b>	2	6.25%
Moderately difficult	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%	-	-
Extremely Difficult	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%	-	-
Overall	7	21.87%	6	18.75%	8	25%	5	15.62%	5	15.62%	1	3.12%	32	100%

42.86% of males aged between 18-20 revealed that the use of online shopping services extremely easy for them. 66.67% of male participants from 21-25 age group defined slightly easy to use supermarket online ordering services, along with 75% of males aged 26-30 and 60% males over 30. 40% of males aged group 41-60 stated that neither easy nor difficult, while 100% males over 60 agree with the notion. Slightly difficult use of online supermarket shopping is faced by 12.50% of males aged 26-30.

Table 37. *Use of supermarket online shopping services by females age group*

Female	Responses		Responses		Responses		Responses		Responses		Responses		Total	%
	18-20	%	21-25	%	26-30	%	31-40	%	41-60	%	Over 60	%	Res.	100%
Extremely easy	1	20.00%	2	20.00%	3	20.00%	3	23.07%	0	20.00%	0	00.00%	9	16.67%
Slightly easy	3	<b>60.00%</b>	7	<b>70.00%</b>	8	<b>53.33%</b>	8	<b>61.53%</b>	0	40.00%	1	16.66%	27	50.00%
Neither easy Nor difficult	0	00.00%	1	10.00%	3	20.00%	2	15.38%	4	<b>80.00%</b>	5	<b>83.33%</b>	15	27.78%
Slightly difficult	1	20.00%	0	00.00%	0	12.50%	0	10.00%	1	20.00%	0	00.00%	2	3.71%
Moderately difficult	0	00.00%	0	00.00%	1	06.66%	0	00.00%	0	00.00%	0	00.00%	1	1.85%
Extremely Difficult	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%	-	-
Overall	5	9.25%	10	18.51%	15	27.77%	13	24.07%	5	27.77%	6	11.11%	54	100%

Slightly easy use of online supermarket shopping is experienced by 60% of female participants aged between 18-20, along with 70% of females aged 21-25. 06.66% of females aged 26-30 stated that use of online supermarket ordering moderately difficult, and the rest of those acceptable with that. Females participants aged 31-40 revealed 23.07% claimed that the use of an online supermarket is extremely easy, while 61.53% of those agree with slightly easy. 80% of females aged within 41-60 experienced with neither easy nor difficult use of online supermarket shopping, with 83.33% of those over 60 expressed the same idea.

#### 4.10 Meet requirements in online supermarket services

An examination of Question 12.

Table 41 listed the answer choices below for participants that define the level of candidate's requirements fulfillment while shopping in an online supermarket. The first column shows some options, and the next column displays the total of each response with a percentage.



Table 38. *Meet requirements in online supermarket services*

Answer choices	Responses	%
Extremely well	10	01.05%
Very well	61	<b>63.16%</b>
Some-what well	19	20.00%
Not so well	5	05.26%
Not well at all	0	00.00%

As describes in table 38, 01.05% (10) participants indicate that online supermarket services meet their requirements extremely well. Most with 63.16% of candidates said that fulfillment of requirements very well by online supermarket facilities. 20% of participants selected some-what well, on another side, not well at all claimed by 05.26% of people.

Table 39. *Meet requirements in online supermarket services by males age group.*

Male	Extremely well		Very well		Some-what well		Not so well		Not well at all		Total	%
	Res.	%	Res.	%	Res.	%	Res.	%	Res.	%	Resp.	100%
18-20	3	<b>42.86%</b>	4	08.16%	0	00.00%	0	00.00%	0	00.00%	7	21.87%
21-25	0	00.00%	5	<b>83.33%</b>	1	16.67%	0	00.00%	0	00.00%	6	18.75%
26-30	0	00.00%	6	<b>75.00%</b>	1	12.50%	1	12.50%	0	00.00%	8	25.00%
31-40	0	00.00%	4	<b>80.00%</b>	0	00.00%	1	20.00%	0	00.00%	5	15.63%
41-60	1	20.00%	2	<b>40.00%</b>	1	20.00%	1	20.00%	0	00.00%	5	15.63%
Over 60	1	<b>100.00%</b>	0	00.00%	0	00.00%	0	00.00%	0	00.00%	1	3.12%
Overall	5	15.63%	21	65.62%	3	9.37%	3	9.37%	-	-	32	100%

42.86% of males aged 18-20 said that online supermarket services meet their requirements extremely well, but the rest of 08.16% respond to this statement as very well. 83.33% of the male from the 21-25 age group revealed that their needs met very well by online supermarket shopping services, the 16.67% of other selected some-what well to express their opinion. 75% of those aged

26-30 expressed that electronic supermarket facilities meet their necessities very well, 12.05% of males mentioned some-what well and remainder 12.05% of people choose not so well option to respond to this statement. 80% of the male from 31-40 age group claim that online supermarket services very well to meet their needs, while the rest 20% shared this as not so well. Participants aged 41-60 revealed 40% of males decided their online shopping requirements meet very well by supermarkets, with 20% selected extremely well, another 20% some-what well, and last 20% not so well. Males aged over the 60s, 100% agreed with extremely well requirement fulfillment statement.

Table 40. *Meet requirements in online supermarket services by female age group*

Female	Extremely well		Very well		Some-what well		Not so well		Not well at all		Total	%
	Res.	%	Res.	%	Res.	%	Res.	%	Res.	%	Resp.	100%
18-20	0	00.00%	4	<b>80.00%</b>	1	20.00%	0	00.00%	0	00.00%	5	9.25%
21-25	3	30.00%	7	<b>70.00%</b>	0	00.00%	0	00.00%	0	00.00%	10	18.52%
26-30	1	06.67%	9	<b>60.00%</b>	4	26.67%	1	06.67%	0	00.00%	15	27.77%
31-40	1	07.69%	10	<b>76.92%</b>	2	15.38%	0	00.00%	0	00.00%	13	24.07%
41-60	0	00.00%	2	40.00%	3	<b>60.00%</b>	0	00.00%	0	00.00%	5	9.25%
Over 60	0	00.00%	2	33.33%	4	<b>66.67%</b>	0	00.00%	0	00.00%	6	11.11%
Overall	5	9.25%	34	62.96%	14	25.92%	1	1.85%	-	-	54	100%

80% of female participants aged within 18-20 shared that online supermarket services meet all the requirements very well, while 20% of those mentioned some-what well. Females aged 21-25, 30% of candidates' requirements meet extremely well by online supermarket services, during the remaining 70% stated very well. 06.67% of aged female group 26-30 claimed that electronic supermarket services meet their requirements extremely well, a most with 60% selected very well, and 26.67% shared some-what well. Female participants aged group 31-40, most 76.92% of people who participated in the survey stated very well requirement fulfillment by online supermarket service rather than others. 60% of participants expressed their answer by selected some-what well, with 40% chosen very well. Similar in the case of aged over the 60s, participants' responses

divided onto two options, 33.33% claimed statement as a very well, and rest of 66.67% some-what well.

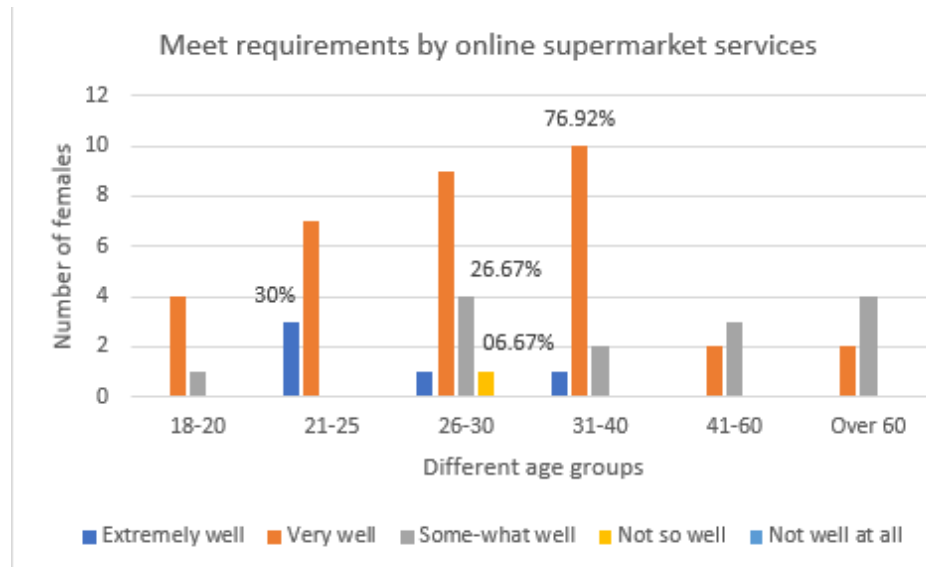


Figure 18. Requirements satisfaction in online supermarket services by females

This bar graph displays requirement satisfaction in online supermarket services by females age group. The vertical axis shows the number of female participants and the horizontal axis represent female age groups. Most 76.92% of females aged between 31-40 said that they are requirement satisfaction very well in online supermarket services.

#### 4.11 Quality of online supermarket products

##### An examination of question 13.

If people using online supermarket products, then how they rate the quality of those products.

Table 41 illustrates data about participants' responses toward the quality of the online supermarket product. The first column of the table shows the list of quality rate, and the next column listed the responses in numbers and percentages.

Table 41. *Quality of online supermarket products by all participants*

Answer choices	Responses	%
Very high quality	10	10.53%
High quality	60	<b>63.16%</b>
Neither high or low quality	23	24.21%
Low quality	1	01.05%
Very low quality	1	01.05%

63.16% (60 participants) of participants agreed with the high quality of online supermarket products. In contrast, 01.05% of people experienced with low-quality online items, 24.21% of participants stated that neither high nor low quality of online supermarket products.

Table 42. *Quality of online supermarket products grouped by gender*

	Male		Female		Others		Prefer not to answer		Total	%
	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Resp.	100%
Excellent	4	12.90%	8	14.81%	1	16.67%	2	<b>66.67%</b>	15	15.95%
Very good	11	<b>35.48%</b>	15	27.78%	0	00.00%	0	00.00%	26	27.65%
Good	11	35.48%	24	<b>44.44%</b>	2	33.33%	0	00.00%	37	39.36%
Average	5	16.13%	7	12.96%	3	<b>50.00%</b>	1	33.33%	16	17.02%
Poor	0	00.00%	0	00.00%	0	00.00%	0	00.00%	-	
Overall	31	32.97%	54	57.44%	6	6.38%	3	3.19%	94	100%

Table 42 depicts that 12.90% of male participants and 35.48% of female participants show an excellent experience with online shopping, along with 16.67% of others, and 66.67% of prefer not to answer expressed similar responses. Furthermore, 35.48% of male and 27.78% of females has very good experience with electronic shopping. While 35.48% of males and 44.44% of females shared their good online shopping experiences, 33.33% of others have a good experience too. On another side, 16.13% of male and 12.96% of females shows average experience level in online shopping, with 50% of others and 33.33% of participants with prefer not to answer also stated their collective knowledge about online shopping.

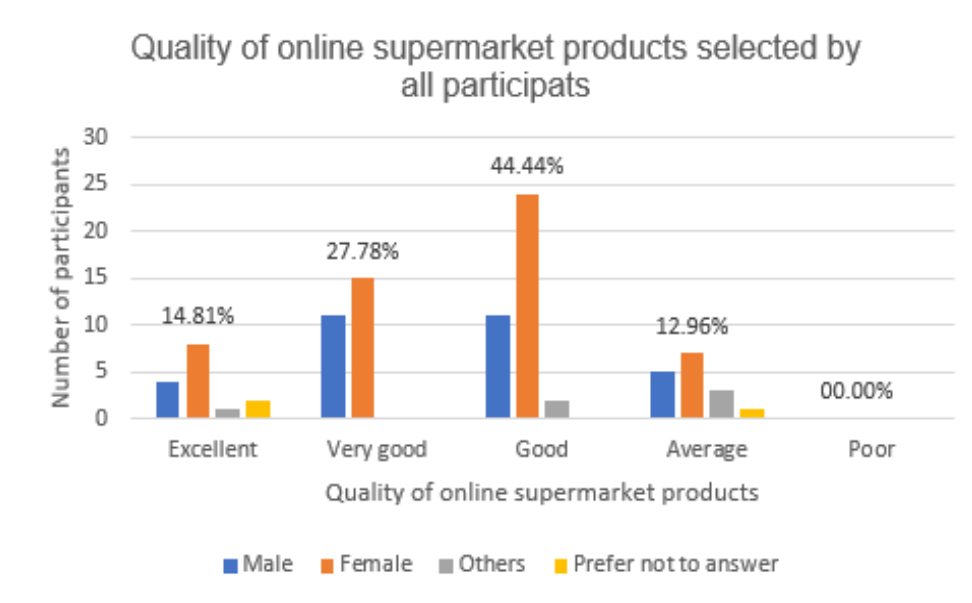


Figure 19. Quality of online supermarket products grouped by gender

This bar graph illustrates the quality of online supermarket products by gender. The vertical axis shows the number of participants and horizontal shows range of online supermarket products' quality. 44.44% of females expressed that the quality of online supermarket items is good, and 27.78% of those said that very good quality of online products in the supermarket industry.

Table 43. Share an online ordering experience by males age group

Male	Excellent		Very good		Good		Average		Poor		Total	%
	Resp.		Resp.	%	Resp.	%	Resp.	%	Resp.	%	Resp.	100%
18-20	3	42.86%	4	57.14%	0	00.00%	0	00.00%	0	00.00%	7	22.58%
21-25	0	00.00%	3	50.00%	3	50.00%	0	00.00%	0	00.00%	6	19.35%
26-30	1	12.50%	0	00.00%	4	50.00%	3	37.50%	0	00.00%	8	25.80%
31-40	0	00.00%	2	40.00%	2	40.00%	1	20.00%	0	00.00%	5	16.13%
41-60	0	00.00%	1	25.00%	2	50.00%	1	25.00%	0	00.00%	4	12.90%
Over 60	0	00.00%	1	100.00%	0	00.00%	0	00.00%	0	00.00%	1	3.23%
Overall	4	12.90%	11	35.48%	11	35.48%	5	16.13%	-	-	31	100%

Table 43 depicts that males within the age of 18-20 all expressed that excellent and very good knowledge about online shopping. While all males aged 21-25 show very good with 50%, and the remainder 50% selected good online ordering experience. Furthermore, males aged 26-30 answered that 12.50% indicated excellently, 50% good, and 37.50% of participants were average online shopping experience. 40% of males aged 31-40 convey very good experience, a similar percentage with good and remaining 20% average level of online shopping experience. 50% of males aged between 41-60 shows good experience level, where 25% very good, and last 25% with average knowledge toward online ordering. Most with 100% of males aged over the 60s expressed very good experience with online shopping.

Table 44. *Share an online ordering experience by females age group*

Female	Excellent		Very good		Good		Average		Poor		Total	%
	Resp.		Resp.	%	Resp.	%	Resp.	%	Resp.	%	Responses	100%
18-20	1	20.00%	1	20.00%	2	<b>40.00%</b>	1	20.00%	0	00.00%	5	9.25%
21-25	4	<b>40.00%</b>	3	30.00%	2	20.00%	1	10.00%	0	00.00%	10	18.52%
26-30	2	13.33%	6	40.00%	7	<b>46.67%</b>	0	00.00%	0	00.00%	15	27.78%
31-40	1	07.69%	5	<b>38.46%</b>	5	<b>38.46%</b>	2	15.38%	0	00.00%	13	24.07%
41-60	0	00.00%	0	00.00%	3	<b>60.00%</b>	2	40.00%	0	00.00%	5	9.26%
Over60	0	00.00%	0	00.00%	5	<b>83.33%</b>	1	16.67%	0	00.00%	6	11.11%
Overall	8	14.81%	15	27.78%	24	44.44%	7	12.96%	-	-	54	100%

Table 44 depicts, 20% of females aged 18-20 excellent experience with online shopping, a similar percentage of females with very good and average knowledge about online ordering. While the remaining 40% indicated, they are with an excellent online experience. The majority of 40% of females aged 21-25 defined excellent experience with online shopping. 46.67% of participants belong to age group 26-30 show a good knowledge of electronic ordering. 38.46% of females aged 31-40 said that similar levels of experience as very good and good with online shopping. Most 60% of females belong to age group 41-60 expressed good experience, while 40% of them an

average level of online shopping experience. In the last row, all females aged over the 60s indicated good online ordering experience by 83.33% and average by 16.67%.

#### 4.12 Experience with staff responses

##### An examination of survey question14.

In this data analysis section, table 45 shows the people's experience who's used to interact with staff about different queries. As shown in a table below, the first column listed several answer choices, and the next column describes the total responses with percentages.

Table 45. *Experience with staff responses by all participants*

Answer choices	Responses	%
Extremely responsive	8	08.51%
Very responsive	8	08.51%
Not so responsive	25	<b>26.59%</b>
Not at all responsive	5	05.26%

08.51% (8 participants) of people had experience with staff extremely responsive to queries. A similar number of participants, 08.51% (8) experienced with very responsive staff about questions. Maximum 26.59% of participants replied staff not so responsive toward any queries, while staff did not at all responsive answered by 05.26% of contestants.

Table 46. *Experienced with staff responses by gender*

	Extremely responsive		Very responsive		Not so responsive		Not responsive at all		Total	%
	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Responses	100%
Male	6	18.75%	16	<b>50.00%</b>	9	28.12%	1	03.12%	32	34.04%
Female	2	03.77%	35	<b>66.04%</b>	14	26.41%	2	03.77%	53	56.38%
Others	0	00.00%	3	<b>50.00%</b>	2	33.33%	1	16.67%	6	6.38%
Prefer not to answer	0	00.00%	2	<b>66.67%</b>	0	00.00%	1	33.33%	3	3.19%
Overall	8	8.51%	56	59.57%	25	26.59%	5	5.32%	94	100%

The data from table 46 depicts that 18.75% of males and 03.77% of females had an extremely responsive staff experience with queries. Very responsive staff experienced by all participants 50.00% by a male, 66.04% by female, 50.00% others, and the rest 66.67% prefer not to answer. At most, 33.33% of others experienced no such responsive staff about inquiries, while 28.12% of males and 26.41% of females had similar responses. 03.77% are females, 03.12% males, others by 16.67%, and while the remaining 33.33% prefer not to answer participants claimed that staff is not at all responsive about any queries.

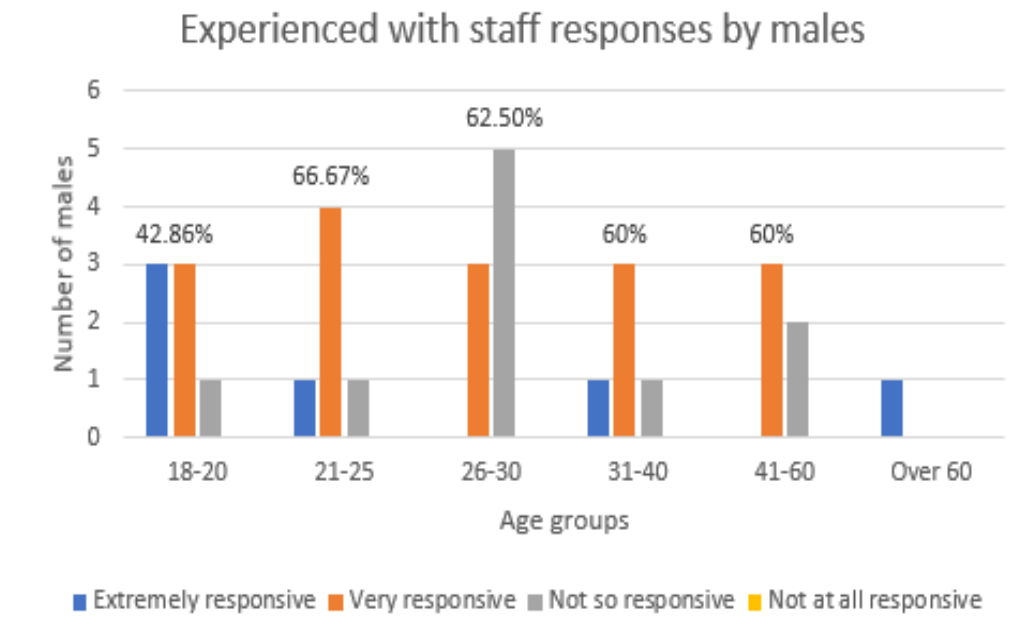
Table 47. *Experienced with staff responses by males age groups*

Male	Extremely responsive		Very responsive		Not so responsive		Not at all responsive		Total	Percentage
	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Responses	100%
18-20	3	<b>42.86%</b>	3	<b>42.86%</b>	1	14.29%	0	00.00%	7	21.87%
21-25	1	16.67%	4	<b>66.67%</b>	1	16.67%	0	00.00%	6	18.75%
26-30	0	00.00%	3	37.50%	5	<b>62.50%</b>	0	00.00%	8	25.00%
31-40	1	20.00%	3	<b>60.00%</b>	1	20.00%	0	00.00%	5	15.62%
41-60	0	00.00%	3	<b>60.00%</b>	2	40.00%	0	00.00%	5	15.62%
Over60	1	<b>100.00%</b>	0	00.00%	0	00.00%	0	00.00%	1	3.12%
Overall	6	18.75%	16	50.00%	10	31.25%	-	-	32	100%

42.86% of male participants aged group 18-20 experienced that online staff responses are extremely responsive, the same percentage of males agree that very responsive, the rest of the 14.29% of those aged replied with not so response. 66.67% of males aged within 21-25 stated that online staff very responsive about their queries, 16.67% of males agreed with extremely responsive. Male participants aged 26-30 revealed 37.50% showing that online staff very responsive, the remainder 62.50% from those believed that online employees not so responsive. Most 60% of male participants aged between 31-40 stating that their experience with online staff very responsive, while 20% said not so responsive. 60% of participants from 41-60 aged group agree that online employees very responsive, the remaining of those believed in not so



responsive. 100% of males aged over the 60s relied on that online staff extremely responsive to queries.



*Figure 20.* Experienced with staff responses by males age group

This bar graph depicts the male participants' experience with staff responses by age groups. The vertical axis shows the number of males and the horizontal axis shows age groups. The frequency of staff responses shows in different colors. Each age group had different experiences. The blue bar and orange bar show 42.86% of males aged between 18-20 expressed extremely responsive and very responsive staff responses. The grey bar shows not so responsive experience within the age group 26-30.

Table 48. *Experienced with staff responses by females age group*

Female	Extremely responsive		Very responsive		Not so responsive		Not at all responsive		Total	Percentage
	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Responses	100%
18-20	0	00.00%	3	<b>60.00%</b>	2	40.00%	0	00.00%	5	9.43%
21-25	0	00.00%	9	<b>90.00%</b>	1	10.00%	0	00.00%	10	18.86%
26-30	1	06.67%	12	<b>80.00%</b>	2	13.33%	0	00.00%	15	28.30%
31-40	1	08.33%	8	<b>66.67%</b>	3	25.00%	0	00.00%	12	22.64%
41-60	0	00.00%	1	20.00%	2	<b>40.00%</b>	2	<b>40.00%</b>	5	9.43%
Over60	0	00.00%	2	33.33%	4	<b>66.67%</b>	0	00.00%	6	11.32%
Overall	2	3.77%	35	66.04%	14	26.41%	2	3.77%	53	100%

Table 48 shows the experience of females age groups with online staff responses. 60% of females aged group 18-20 said that online staff is very responsive about their queries, the remainder 40% of those agree with not so responsive. 90% of female participants aged between 21-25 had a very responsive experience with online employees, 10% agree with not no responsive. Females aged 26-30, 06.67% had an extremely responsive experience with 80% of those who had a very responsive experience with the online staff. Furthermore, very responsive, experienced by 66.67% of females, and extremely response by 08.33% of female participants from the 31-40 age group. 40% of females aged within 41-60 showing that they had a not so responsive experience and the same number of females also relied on as not at all responsive, the remaining 20% agree that online staff is very responsive. Over the 60s, 33.33% of females believed online staff is very responsive to their questions, while the rest 66.67% of those claimed not so responsive.

#### 4.13 Revisit the same supermarket due to good experience

##### An examination of survey question 15.

Table 49 listed the answers of survey question 15, which defines the total number of participants how are satisfied with online services; that's the way they like to buy the products from the same supermarket again. Answer options for participants listed in the first column and responses with percentage defined in the next one.

Table 49. *Revisit the same supermarket due to good experience by all participants*

Answer choices	Responses	%
Strongly agree	11	11.58%
Agree	46	<b>48.42%</b>
Neutral	31	32.63%
Neither agree nor disagree	6	06.36%
Disagree	1	01.05%
Strongly disagree	0	00.00%

As shown in table 49, 11.58% of participants strongly agree to purchase the products from the same online supermarket if they are satisfied with services. At most, 48.42% of people are satisfied with online supermarket services and agree to buy items from the same place. On the other side, 32.63% of contestants expressed neutral responses about this statement, while 06.36% of people neither agree nor disagree with the statement. But 01.05% of participants are disagreed with buying online products from the same supermarket.

Table 50. *Revisit the same supermarket due to good experience by gender*

	Male		Female		Others		Prefer not to answer		Total	Percentage
	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Responses	100%
Strongly agree	5	15.62%	6	11.11%	0	00.00%	0	00.00%	11	11.58%
Agree	15	<b>46.87%</b>	28	<b>51.85%</b>	2	33.33%	1	33.33%	46	48.42%
Neutral	10	31.25%	17	31.48%	2	33.33%	2	<b>66.67%</b>	31	32.63%
Neither agree nor disagree	1	03.12%	3	05.56%	2	33.33%	0	00.00%	6	6.31%
Disagree	0	00.00%	0	00.00%	0	00.00%	0	00.00%	-	
Strongly disagree	1	03.12%	0	00.00%	0	00.00%	0	00.00%	1	1.05%
<b>Overall</b>	32	33.68%	54	56.84%	6	6.31%	3	3.15%	95	100%

15.62% of males and 11.11% of females strongly agreed to use the same online supermarket again if they are satisfied with their services. Despite it, if 46.87% of female participants and 51.85% of males are satisfied with online supermarket services, and they agreed to revisit for shopping. While the rest of 33.33% others and 33.33% prefer not to answer also agreed with the statement. 66.67% replied with a neutral response. Neutral responses are revealed by 31.25% of males, others by 33.33%, and similar reactions from prefer not to answer. 05.56% of females and 03.12% of males expressed they neither agree nor disagree with this statement. Lastly, 03.12% of male participants strongly disagree to continue online ordering from a similar supermarket.

Table 51. *Revisit the same supermarket due to good experience by males age group*

Male	Responses		Responses		Responses		Responses		Responses		Responses		Total	%
	18-20	%	21-25	%	26-30	%	31-40	%	41-60	%	Over 60	%	Resp.	100%
Strongly agree	3	<b>42.86%</b>	1	16.67%	1	12.50%	0	00.00%	0	20.00%	0	00.00%	5	15.63%
Agree	2	28.57%	5	<b>83.33%</b>	3	37.50%	3	<b>60.00%</b>	2	40.00%	1	<b>100.00%</b>	16	50.00%
Neutral	1	14.28%	0	00.00%	4	<b>50.00%</b>	1	20.00%	3	<b>60.00%</b>	0	00.00%	9	28.12%
Neither agree Nor disagree	0	00.00%	0	00.00%	0	12.50%	1	20.00%	0	00.00%	0	00.00%	1	3.12%
Disagree	1	14.28%	0	00.00%	0	06.66%	0	00.00%	0	00.00%	0	00.00%	1	3.12%
Strongly disagree	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	-
Overall	7	21.87%	6	18.75%	8	25.00%	5	15.63%	5	15.63%	1	3.12%	32	100%

Table 51 shows how many male participants revisit the same supermarket due to good experience by each age group. 42.86% of males aged between 18-20 strongly agree to revisit the same supermarket based on their shopping experiences, 28.57% agree with the opinion. 16.67% of males aged group 21-25 had a good shopping experience. That's why they strongly agree to return to the same supermarket, while the rest 83.33% of males also agree with the idea. Male participants of age group 26-30 had three different opinions with the belief 12.50% strongly agree, 37.50% agree, and half of those neutral to revisit the same supermarket for shopping. 40% of males agree to go back to the same supermarket for shopping, 60% of those neutral due to their ordering experience. 100% of over 60s agree because they had a good shopping experience with the same store.

Table 52. *Revisit the same supermarket due to good experience by females age group*

Female	Responses		Responses		Responses		Responses		Responses		Responses		Total	%
	18-20	%	21-25	%	26-30	%	31-40	%	41-60	%	Over 60	%	Resp.	100%
Strongly agree	2	40.00%	2	20.00%	1	06.67%	1	07.69%	0	20.00%	0	00.00%	6	11.11%
Agree	1	20.00%	5	<b>50.00%</b>	10	<b>66.67%</b>	9	<b>69.23%</b>	2	40.00%	1	16.67%	28	51.85%
Neutral	2	40.00%	3	30.00%	2	13.33%	3	23.07%	3	<b>60.00%</b>	4	<b>66.67%</b>	17	31.48%
Neither agree Nor disagree	0	00.00%	0	00.00%	2	13.33%	0	00.00%	0	00.00%	1	16.67%	3	5.55%
Disagree	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%	-	-
Strongly disagree	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%	-	-
Overall	5	9.25%	10	40.00%	15	60.00%	13	24.07%	5	9.26%	6	11.11%	54	100%

40% of females aged (18-20) said that they strongly agree to revisit the same supermarket due to good experience, while 20% of those agree with the notion. 50% of the females from (21-25) age group agree to return to the same supermarket, along with 66.67% of females aged (26-30) because of their previous shopping experience. Most 69.23% of female contestants aged between (31-40) showing they agree to choose similar online supermarket for shopping. Females aged (41-60) revealed 60% of those expressed neutral responses, the rest 40% of females agree that they are used to visit the supermarket again and again due to their good ordering experience. 16.67% of females over 60s neither agree nor disagree.

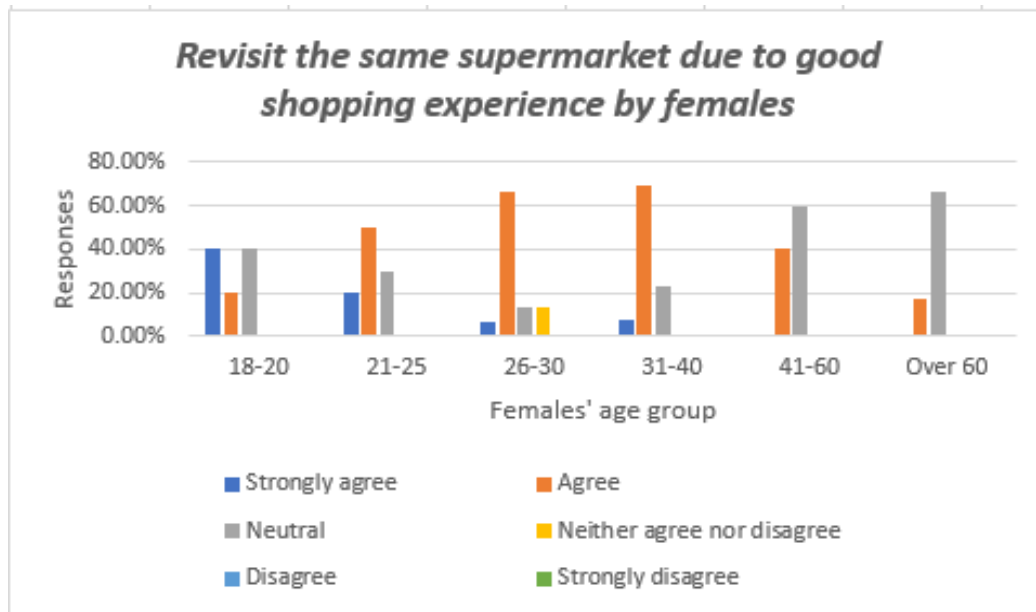


Figure 21. Revisit the same supermarket by females

As shown in this bar graph, the highest percentage of female participants from all age groups agree to revisit the same supermarket due to an excellent shopping experience. Furthermore, females aged over 40 showing a neutral response toward returning to the same supermarket for shopping. Females aged between 18-40 indicated strongly agree to revisit a similar store with good ordering experiences. Female aged group 26-30 neither agree nor disagree with the notion.

#### 4.14 Send feedback to online supermarkets

An examination of survey question16.

Table 53. Send feedback to online supermarkets by all participants

Answer choices	Responses	%
Always	16	16.84%
Usually	41	<b>43.16%</b>
Sometimes	29	30.53%
Rarely	7	07.37%
Never	2	02.10%

Table 53 describes that 43.16% (or 41 participants) of participants usually send feedback to online supermarkets, while 02.10% (or 2 participants) of those had never sent a response to a company.

Table 54. *Feedback to online supermarkets by gender*

	Always		Usually		Sometimes		Rarely		Never		Total	Percentage
	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Responses	100%
Male	9	<b>40.99%</b>	2	09.09%	10	45.45%	1	04.55%	0	00.00%	22	26.19%
Female	6	11.32%	25	<b>47.17%</b>	16	30.18%	5	09.43%	1	01.88%	53	63.09%
Others	1	16.67%	2	33.33%	2	33.33%	1	16.67%	0	00.00%	6	7.14%
Prefer not to answer	0	00.00%	2	<b>66.67%</b>	1	33.33%	0	00.00%	0	00.00%	3	3.57%
Overall	16	19.04%	31	36.90%	29	34.53%	7	8.33%	1	1.19%	84	100%

40.99% of male participants expressed that they always like to send feedback to online supermarkets, along with 11.32% of females. 66.67% of prefer not to answer participants usually responded online supermarkets, the rest 33.33% of those sometimes. 16.67% of others rarely send feedback to online supermarkets. On the other hand, 01.88% of females never send feedback.

Table 55. *Send feedback to online supermarkets by males age group*

Male	Always		Usually		Sometimes		Rarely		Never		Total	%
	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Resp.	100%
18-20	4	<b>57.14%</b>	2	28.57%	1	14.28%	0	00.00%	0	00.00%	7	21.87%
21-25	1	16.67%	4	<b>66.67%</b>	1	16.67%	0	00.00%	0	00.00%	6	18.75%
26-30	1	12.50%	3	<b>37.50%</b>	3	<b>37.50%</b>	1	12.50%	0	00.00%	8	25.00%
31-40	1	20.00%	3	<b>60.00%</b>	1	20.00%	0	00.00%	0	00.00%	5	15.62%
41-60	1	20.00%	0	00.00%	4	<b>80.00%</b>	0	00.00%	0	00.00%	5	15.62%
Over 60	1	<b>100.00%</b>	0	00.00%	0	00.00%	0	00.00%	0	00.00%	1	3.12%
Overall	9	28.12%	12	65.62%	10	31.25%	1	3.12%	-	-	32	100%

Table 55 shows the details of sending feedback to online supermarkets by male age groups. 57.14% of males aged within (18-20) always wish to send feedback to online supermarkets, while 14.28% of those preferred sometimes. 66.67% of male participants aged (21-25) said that they

usually give feedback to online supermarkets, along with 37.50% of those aged over 25. Male contestants 80% aged (41-60) believed in sometimes to share their shopping experiences with supermarkets, the remainder 20% of those agree with always. 100% of males over 60 said that they always like to send feedback to an online supermarket about their services.

Table 56. *Send feedback to online supermarkets by females age group*

Female	Always		Usually		Sometimes		Rarely		Never		Total	Percentage
	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Responses	100%
18-20	0	00.00%	3	<b>60.00%</b>	2	40.00%	0	00.00%	0	00.00%	5	9.26%
21-25	3	30.00%	5	<b>50.00%</b>	2	20.00%	0	00.00%	0	00.00%	10	18.52%
26-30	2	13.33%	9	<b>60.00%</b>	2	13.33%	1	06.67%	1	06.67%	15	27.78%
31-40	1	07.69%	5	<b>38.46%</b>	5	<b>38.46%</b>	2	15.38%	0	00.00%	13	24.07%
41-60	0	00.00%	2	<b>40.00%</b>	2	<b>40.00%</b>	1	20.00%	0	00.00%	5	9.26%
Over 60	0	00.00%	1	16.67%	3	<b>50.00%</b>	1	16.67%	1	16.67%	6	11.11%
Overall	6	11.11%	25	46.29%	16	29.63%	5	9.26%	2	3.70%	54	100%

60% of female participants aged (18-20) revealed that they usually send feedback to online supermarkets, the remaining 40% of those sometimes. Most 30% of females aged within (21-25) defined that they always desire to share their shopping experience with online supermarkets in the form of feedback, along with 07.69% of females aged (31-40). 16.67% of females over 60s rarely send responses to online supermarkets about their services, the rest of 16.67% of those never send any feedback.

#### 4.15 Suggestions to an online retailer by participants

An examination of survey question 17.

Table 57. *Suggestions for an online retailer by all participants*

Answer choices	Responses	%
Yes	83	<b>86.46%</b>
No	13	13.54%



Table 57 illustrates that 86.46% of participants are provided feedback with suggestions to an online retailer so that they can improve their customer services. 13.54% of participants did not give any ideas to an online retailer.

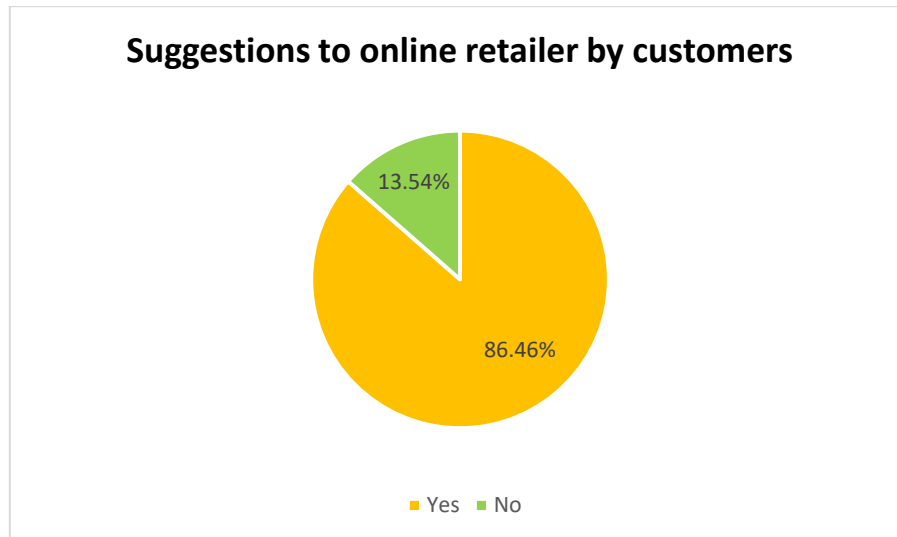


Figure 22. Suggestions for an online retailer

A pie chart depicts that the highest number of people believed to suggest an online retailer enhance their customer services. In contrast, others did not give any suggestions to an electronic retailer.

Table 58. *Suggestions for an online retailer by gender*

	Male		Female		Others		Prefer not to answer		Total	Percentage
	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Responses	100%
Yes	29	<b>90.62%</b>	45	83.33%	5	83.33%	3	<b>100.00%</b>	82	86.31%
No	3	09.37%	9	16.66%	1	16.67%	0	00.00%	13	13.68%
Overall	32	33.68%	54	56.84%	6	6.31%	3	3.15%	95	100%

Table 58 depicts answers to question by gender: males and females. 35.37% of males and 54.88% of females expressed that their suggestions are helped to an online retailer to improve their customer services. On the other side, 69.23% of females and 23.08% of male participants stating that they did not give any suggestions to an online retailer.

Table 59. *Suggestions for an online retailer by males age group*

Male	Yes		No		Total	Percentage
	Responses	%	Responses	%	Responses	100%
18-20	7	<b>100.00%</b>	0	00.00%	7	21.87%
21-25	6	<b>100.00%</b>	0	00.00%	6	18.75%
26-30	6	75.00%	2	25.00%	8	25.00%
31-40	5	<b>100.00%</b>	0	00.00%	5	15.63%
41-60	4	80.00%	1	<b>20.00%</b>	5	15.63%
Over 60	1	<b>100.00%</b>	0	00.00%	1	3.12%
Overall	29	90.63%	3	9.37%	32	100%

100% of males aged within 18-25, showing that they are provided a suggestion to an online retailer to improve their customer services. 75% of male participants aged group 26-30 also agreed to suggest improving online customer services, while the rest 25% of those not believed in providing any suggestion for an online retailer. Males aged between 41-60, 80% reveal that they also liked to give ideas to online retailers, the remainder 20% selected no. 100% of males from 31-40 and over 60s age group said that they are used to provide suggestions to an online retailer to enhance their customer services.

Table 60. *Suggestions for an online retailer by females age group*

Female	Yes		No		Total	Percentage
	Responses	%	Responses	%	Responses	100%
18-20	3	60.00%	2	40.00%	5	9.25%
21-25	10	<b>100.00%</b>	0	00.00%	10	18.52%
26-30	13	86.67%	2	<b>13.33%</b>	15	27.78%
31-40	11	84.61%	2	15.38%	13	24.07%
41-60	4	80.00%	1	20.00%	5	9.25%
Over 60	4	66.67%	2	33.33%	6	11.11%
Overall	45	83.33%	9	16.66%	54	100%

Table 60 shows that 100% of females aged 21-25 strongly agree with the belief that their suggestions can be used to improve online customer services by a retailer, with 86.67% of females aged 26-30 and 80% of females aged 41-60 and over also believe with the idea. Furthermore, 20%

of female participants said that they are not used to give any suggestion to an online retailer. 40% of females aged 18-20 and 15.38% of females aged 26-30 not agree with the notion.

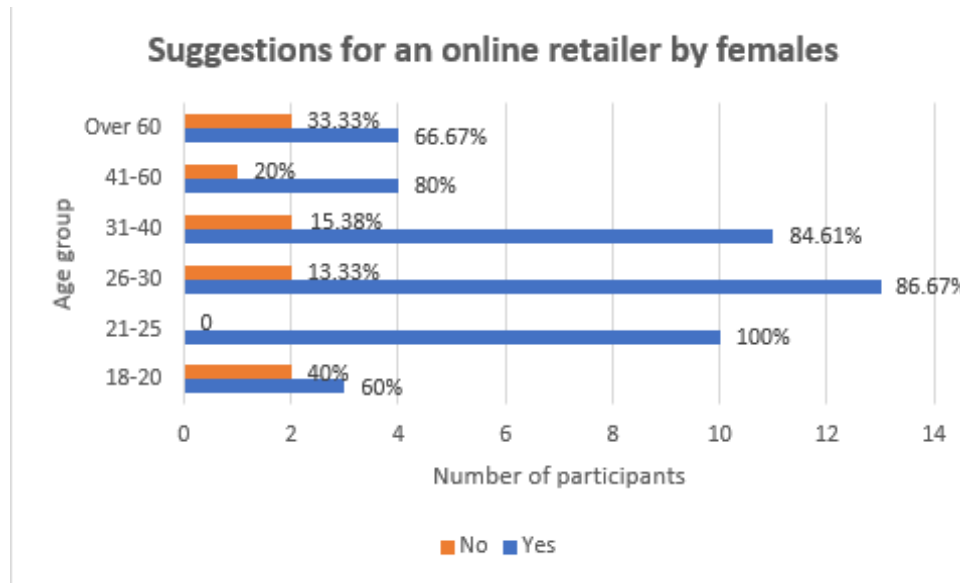


Figure 23. Suggestions for an online retailer by females age group

This bar graph about how female participants are provided with suggestions for an online retailer by age groups. The vertical axis shows age groups and the horizontal axis shows the number of female participants. The blue bars are higher than orange bars. This defines that females from all age groups expressed yes, they are like to send suggestions for an online retailer. Females aged group 26-30 show high interest as compared to other age groups.

#### 4.16 Responses to improve online supermarket services

An examination of survey question18.

Table 61. Useful responses to improve online supermarket services by all participants

Answer choices	Responses	%
Extremely useful	16	16.84%
Moderately useful	16	16.84%
Slightly useful	31	<b>32.63%</b>
Neither useful nor useless	1	01.05%
Do not know	6	06.31%

16.84% of participants said that their responses are extremely useful for online supermarkets to improve their services. The moderately useful answer claimed by a similar number of contestants. The highest 32.63% of participants replied that their suggestions could be slightly useful for online supermarkets, and 01.05% respond with neither useful nor useless.

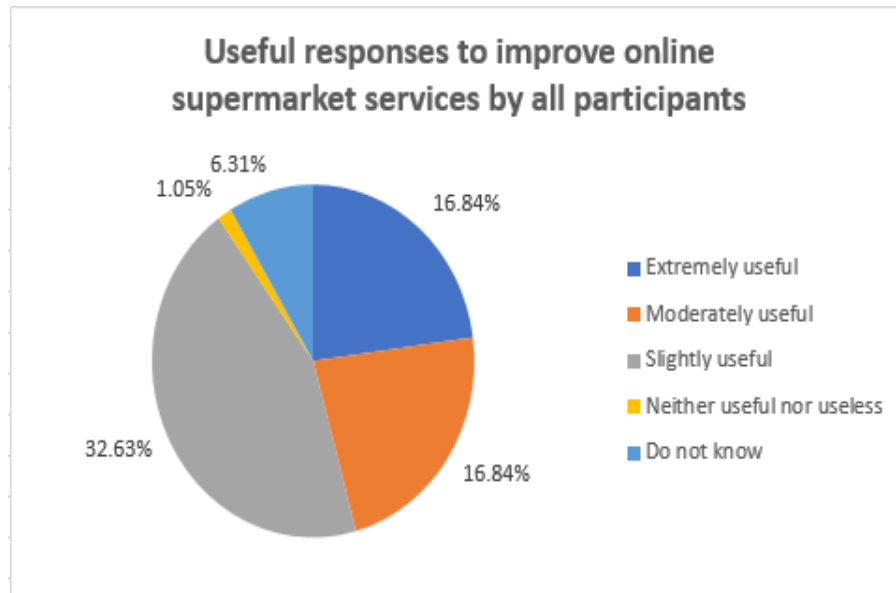


Figure 24. Useful responses to improve online supermarket services.

A pie chart shows an equal percentage of people think that their answers could be extremely and moderately useful for online supermarkets. Most 32.63% of participants believed in slightly useful for online shopping to improve their services. Neither useful nor useless replied by 01.05%, and 06.31% of participants do not know about this.

Table 62. Responses to improve online supermarket services by gender

	Male		Female		Others		Prefer not to answer		Total	%
	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Responses	100%
Extremely useful	9	28.12%	6	11.11%	0	00.00%	3	33.33%	18	17.82%
Moderately useful	14	<b>43.75%</b>	25	<b>46.29%</b>	1	16.67%	3	33.33%	43	42.57%
Slightly useful	7	21.87%	19	35.18%	4	<b>83.33%</b>	3	33.33%	33	32.67%
Neither useful nor useless	0	00.00%	0	00.00%	1	16.67%	0	00.00%	1	0.99%
Do not know	2	06.25%	4	07.40%	0	00.00%	0	00.00%	6	5.94%
Overall	32	31.68%	54	53.46%	6	5.94%	9	8.91%	101	100%

28.12% of males and 11.11% of females stating that they are responses can be extremely useful for supermarkets to enhance their online services. 46.29% of females and 43.75% of male participants claimed that their extremely useful responses could be improved supermarkets' online facilities. 21.87% of males and 83.33% of others believed that their replies are slightly useful for online supermarket services, while 35.18% of females agree with the notion. 16.67% of others said that neither useful nor useless responses. In the end, 06.25% of males and 07.40% of females replied they do not know.

Table 63. *Responses to improve online supermarket services by males age group*

Male	Responses		Responses		Responses		Responses		Responses		Responses		Total	%
	18-20	%	21-25	%	26-30	%	31-40	%	41-60	%	Over 60	%	Responses	100%
Extremely useful	4	<b>57.14%</b>	1	16.67%	2	25.00%	1	20.00%	1	20.00%	0	00.00%	9	28.12%
Moderately useful	2	28.57%	4	<b>66.67%</b>	3	37.05%	3	<b>60.00%</b>	1	20.00%	1	<b>100.00%</b>	14	43.75%
Slightly useful	1	14.28%	0	00.00%	2	25.00%	1	20.00%	3	<b>60.00%</b>	0	00.00%	7	21.87%
Neither useful Nor useless	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%	0	00.00%	-	-
Do not know	0	00.00%	1	16.67%	1	12.50%	0	00.00%	0	00.00%	0	00.00%	2	6.25%
Overall	7	21.87%	6	18.75%	8	25.00%	5	15.62%	5	15.62%	1	3.12%	32	100%

Table 63 displays the answers for a question, the value of participants' responses for supermarkets to improve their online services by males age group. 57.14% (or 4 participants) of males aged group 18-20 stated that their answers are extremely useful for an online supermarket to improve their services, 28.57% of those agree with moderately useful responses, and the rest 14.28% of males claimed slightly useful responses. 16.67% of male participants aged between 21-25 revealed extremely useful responses for online supermarket' services, while 66.67% of those expressed moderately useful. 37.05% of males aged group 26-30 said that their responses are moderately useful to enhance electronic services, 25% showing slightly useful responses. Most 60% of males aged between 31-40 preferred to moderately useful responses, with 20% of males defined extremely useful and remainder 20% said that they believed in slightly useful responses for an online supermarket to expand their services. Participants aged 41-60 showing 60% of male-defined

that slightly useful, and 20% of those said extremely useful responses for online supermarket services. Lastly, 100% of males aged over the 60s agree with moderately useful.

Table 64. *Responses to improve online supermarket services by females age group*

Female	Responses		Responses		Responses		Responses		Responses		Responses		Total	Percentage
	18-20	%	21-25	%	26-30	%	31-40	%	41-60	%	Over 60	%	Resp.	100%
Extremely useful	0	00.00%	3	30.00%	0	00.00%	1	07.69%	0	00.00%	0	00.00%	4	7.40%
Moderately useful	3	<b>60.00%</b>	5	<b>50.00%</b>	6	<b>40.00%</b>	7	<b>53.85%</b>	2	<b>40.00%</b>	2	33.33%	25	46.29%
Slightly useful	1	20.00%	2	20.00%	6	<b>40.00%</b>	5	38.46%	2	<b>40.00%</b>	3	<b>50.00%</b>	19	<b>53.70%</b>
Neither useful Nor useless	0	00.00%	0	00.00%	2	13.33%	0	00.00%	0	00.00%	0	00.00%	2	3.70%
Do not know	1	20.00%	0	00.00%	1	06.67%	0	00.00%	1	20.00%	1	16.67%	4	7.40%
Overall	5	9.25%	10	18.52%	15	27.78%	13	24.07%	5	9.25%	6	11.11%	54	100%

Table 64 depicts the responses from females regarding the question of the survey on online supermarket online services improvement. 60% of females aged 18-20 indicate moderately use of responses for online service improvement, while 50% of over 20s agree with a similar belief. 40% of females aged 26-30 reply moderately useful responses for a supermarket to enhance their facilities, the rest of 60% specify either slightly useful responses for online services or neither useful nor useless. Furthermore, 53.85% of females aged 31-40 defined moderately useful responses for online supermarket services, along with 40% of females aged 41-60 and 33.33% of females aged over 60. However, altogether 90% of females aged over 40 support to slightly useful responses for online supermarket service enhancement.

#### 4.17 Communicate with others about the satisfaction level

An examination of survey question19.

Table 65. *Communicate with others about satisfaction level all participants*

Answer choices	Responses	%
Yes	87	<b>91.57%</b>
No	8	08.42%

91.57% (87 participants) of participants shared their online shopping satisfaction level experience with other customers. On the other side, 08.42% of contestants not interested in communicating with others regarding their online shopping experience.

Table 66. *Communicate with others about satisfaction level by gender*

	Male		Female		Others		Prefer not to answer		Total	Percentage
	Responses	%	Responses	%	Responses	%	Responses	%	Responses	100%
Yes	31	<b>96.87%</b>	49	<b>90.74%</b>	4	<b>66.66%</b>	3	<b>100.00%</b>	87	91.57%
No	1	03.12%	5	09.26%	2	33.33%	0	00.00%	8	8.42%
Overall	32	33.68%	54	56.84%	6	6.32%	3	<b>3.16%</b>	95	100%

96.87% of males expressed that they share their online shopping satisfaction experience with others, while 03.12% not interested. Most of the females by 90.74% liked to communicate with other customers about their satisfaction level with online ordering, and the rest of the 09.26% believed no. Similar to males and females, 66.66% of others claimed that they used to interact with others to discuss their online shopping experience, 100% (3 participants) of males prefer not to answer.

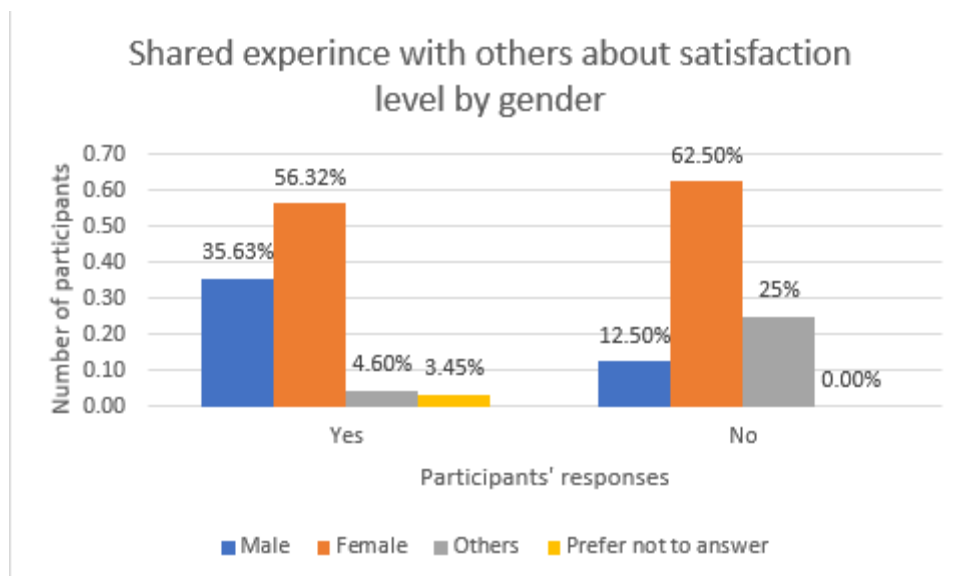


Figure 25. Communicate with other customers about the satisfaction level

A bar graph depicts that the female participants are used to share their online shopping satisfaction experience with other customers as compared to males. 25% of others not preferred to discuss their satisfaction experience with online ordering, while 4.60% of those liked to share.

Table 67. *Communicate with others about satisfaction level by males age group*

Male	Yes		No		Total	Percentage
	Responses	%	Responses	%	Responses	100%
18-20	6	<b>85.71%</b>	1	<b>14.28%</b>	7	21.87%
21-25	6	<b>100.00%</b>	0	00.00%	6	18.75%
26-30	8	<b>100.00%</b>	0	00.00%	8	25.00%
31-40	5	<b>100.00%</b>	0	00.00%	5	15.62%
41-60	5	<b>100.00%</b>	0	00.00%	5	15.62%
Over 60	1	<b>100.00%</b>	0	00.00%	1	3.12%
Overall	31	96.87%	1	3.12%	32	100%

Table 67 represents an answer to a survey question related to satisfaction level with online shopping by males age group. It is cleared from the given table 85.71% of males aged 18-20 stated that they shared their online ordering satisfaction related experience with other customers, where 14.28% answered no. 100% of males aged 21-25 and over 60s believed to discuss with others regarding their gratification with online shopping.

Table 68. *Communicate with others about satisfaction level by females age group*

Female	Yes		No		Total	Percentage
	Responses	%	Responses	%	Responses	100%
18-20	5	100.00%	0	00.00%	5	9.26%
21-25	9	<b>90.00%</b>	1	10.00%	10	18.51%
26-30	15	100.00%	0	00.00%	15	27.78%
31-40	12	92.30%	1	07.69%	13	24.07%
41-60	4	80.00%	1	<b>20.00%</b>	5	9.26%
Over 60	5	<b>83.33%</b>	1	16.67%	6	11.11%
Overall	50	92.59%	4	7.41%	54	100%

100% of females aged between 18-20 and 26-30 expressed that they are used to share their satisfaction experience with other customers related to online ordering. While 90% of females from the 21-25 age group shared their online shopping experience with others. 20% of the aged



group 41-60 said that they are not interested in discussing their personal online shopping experience with others. 83.33% of female participants over the 60s spend their time sharing their understanding of electronic ordering.

#### 4.18 Methods of communication with others

An examination of survey question 20.

Table 69. *Methods of communication by all participants*

Answer choices	Responses	%
Social media	46	<b>48.42%</b>
Phone	15	15.78%
Face to face	30	31.58%
Others	4	04.21%

This section describes what type of methods people used to communicate with others or either to share their online shopping experiences. 48.42% of participants used social media as a communication channel, while 15.78% selected phones. 31.58% of people preferred face to face interaction and 04.21% of participants defined other ways of communication.

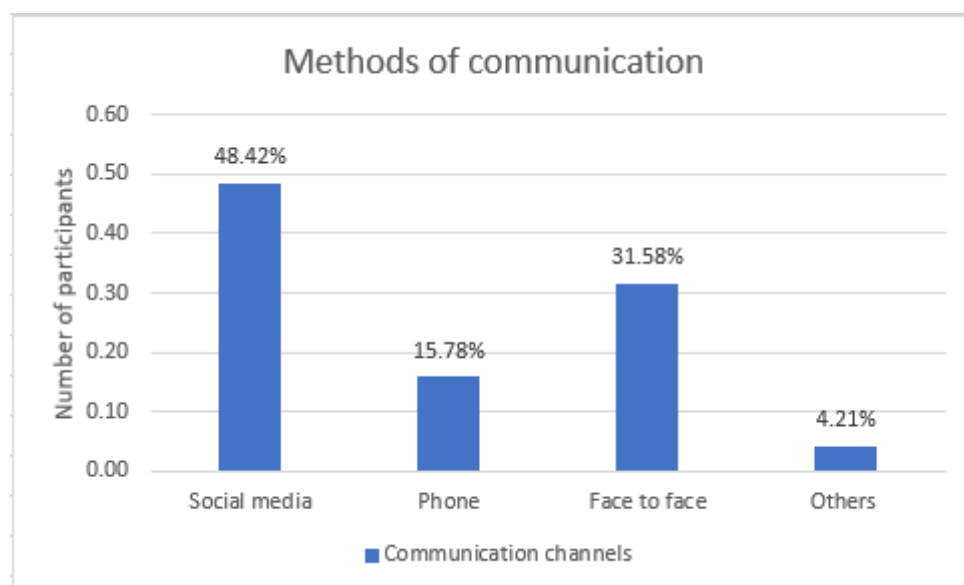


Figure 26. Useful communication methods for communication according to participants

Figure 26 shows the most useful communication methods used by all participants to interact with others. As shown in this bar graph, the vertical axis shows the total number of participants and the horizontal axis displays different communication channels. 48.42% of people selected social media as the most useful communication channel as compared to others.

Table 70. *Methods of communication by gender*

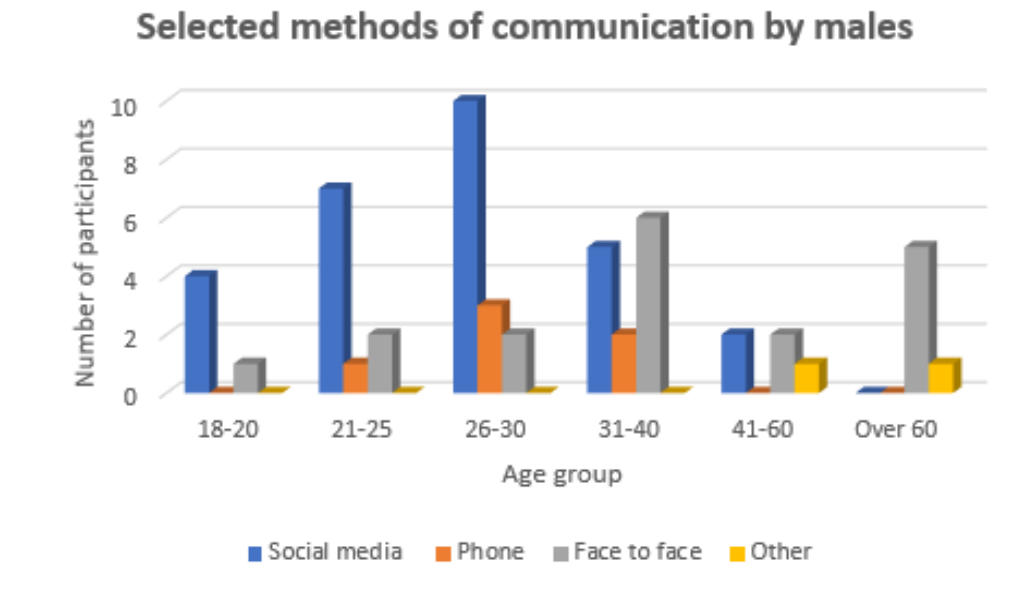
	Male		Female		Others		Prefer not to answer		Total	Percentage
	Resp.	%	Resp.	%	Resp.	%	Resp.	%	Responses	100%
Social media	13	<b>40.63%</b>	28	<b>51.85%</b>	3	<b>50.00%</b>	2	<b>66.67%</b>	46	<b>48.42%</b>
Phone	8	25.00%	6	11.11%	1	16.67%	0	00.00%	15	15.78%
Face to face	9	28.13%	18	33.33%	2	33.33%	1	33.33%	30	31.57%
Others	2	06.25%	2	03.70%	0	00.00%	0	00.00%	4	4.21%
Overall	32	33.68%	54	56.84%	6	6.31%	3	3.15%	95	100%

40.63% of male participants preferred to use social media sites to communicate rather than other options. In the case of females, 51.85% of participants claimed that they used to choose social media to interact with others. The most useful communication method by all gender was social media. Secondly, the face to face interaction almost equally expressed by all gender.

Table 71. *Selected methods of communication by males age group*

Male	Responses		Responses		Responses		Responses		Responses		Responses		Total	%
	18-20	%	21-25	%	26-30	%	31-40	%	41-60	%	Over 60	%	Resp.	100%
Social media	4	<b>57.14%</b>	2	33.33%	3	37.50%	1	20.00%	2	40.00%	1	<b>100.00%</b>	13	40.62%
Phone	2	28.57%	0	00.00%	2	25.00%	3	<b>60.00%</b>	1	20.00%	0	00.00%	8	25.00%
Face to face	0	00.00%	4	<b>66.67%</b>	2	25.00%	1	20.00%	2	40.00%	0	00.00%	9	28.12%
Other	1	14.28%	0	00.00%	1	12.50%	0	00.00%	0	00.00%	0	00.00%	2	6.25%
Overall	7	21.87%	6	18.75%	8	25.00%	5	15.63%	5	15.63%	1	3.12%	32	100%

Table 71 shows the number of communication channels used by male participants. Males from all age groups preferred to use social media sites for communication as compared to other channels. The average usage of face to face interaction defined by male participants from all age groups. But, 60% of males aged between 31-40 used to do communication through the phone. 100% of males age over 60s selected social media communication methods.



*Figure 27. Selected methods for communication by males age groups*

This bar graph represents different methods of communication used by males age groups. The vertical axis shows the number of male participants and the horizontal axis show males age groups. The communication channels represent different colors. The blue bar is higher as compared to others, which shows the use of social media is very famous in males to interact with others. Male participants aged between 31-60 liked face to face conversation. Use of phone as a communication tool adopted by males age within 21-40.

Table 72. *Methods of communication by females age groups*

Female	Responses		Responses		Responses		Responses		Responses		Responses		Total	%
	18-20	%	21-25	%	26-30	%	31-40	%	41-60	%	Over 60	%	Respons	100%
Social media	4	<b>80.00%</b>	7	<b>70.00%</b>	10	<b>66.67%</b>	5	38.46%	2	40.00%	0	00.00%	28	<b>51.85%</b>
Phone	0	00.00%	1	10.00%	3	20.00%	2	15.38%	0	00.00%	0	00.00%	6	11.11%
Face to face	1	20.00%	2	20.00%	2	13.33%	6	46.15%	2	40.00%	5	<b>83.33%</b>	18	33.33%
Other	0	00.00%	0	00.00%	0	00.00%	0	00.00%	1	20.00%	1	16.66%	2	3.70%
Overall	5	9.25%	10	18.52%	15	27.78%	13	24.07%	5	9.25%	6	11.11%	54	100%

Females aged 18-20, 80% (4 participants) stated that they used to select social media for communication, the remaining 20% of females interested in a face to face interaction. 70% of females aged between 21-25 chosen social media as a communication channel, 10% of participants were a habit of using a phone. 66.66% of females from the aged group 26-30 stated that they did interact with others via social media, while 20% defined phone and the rest 13.33% face to face. Most 46.15% of females aged within 31-40 preferred to face to face communication rather than others. 40% of female participants from the 41-60 age group believed in social media, and a similar number of females used to do contact through face to face, and the remainder 20% selected others. Lastly, over 60s of females highly did face to face communication by 83.33%.

#### 4.19 Recommend an online supermarket to others

An examination of survey question 21.

Table 73. *Recommend an online supermarket to others by all participants*

Answer choices	Responses	%
Yes	14	<b>45.36%</b>
No	7	07.37%
Maybe	7	07.37%

45.36% of participants out of total recommended the same online supermarket to others for convenient shopping. With 07.37% of people do not want to recommend supermarket to other people for appropriate ordering, while remaining 07.37% selected maybe for this statement.

Table 74. *Recommend an online supermarket to others by gender*

	Male		Female		Others		Prefer not to answer		Total	Percentage
	Responses	%	Responses	%	Responses	%	Responses	%	Responses	100%
Yes	12	06.25%	24	<b>44.44%</b>	0	00.00%	2	<b>66.67%</b>	38	36.19%
No	16	<b>50.00%</b>	2	03.70%	3	50.00%	0	00.00%	21	20.00%
Maybe	14	43.75%	28	51.85%	3	50.00%	1	33.33%	46	43.81%
Overall	42	40.00%	54	51.43%	6	5.71%	3	2.86%	105	100%

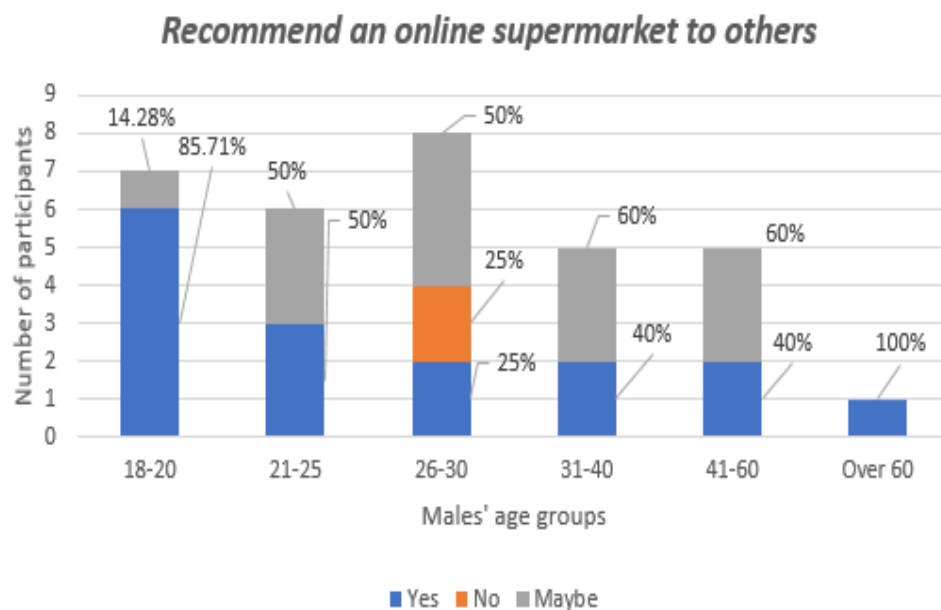
Table 74 helps to answer question 21 by gender. As shown in the table, 66.67% of prefer not to answer did want to recommend online a supermarket to others for convenient facilities. 44.44% of females and 06.25% of males also interested to suggest a supermarket to other people for suitable shopping services. On the other side, 50% of males and 50% of females expressed that they are not interested in recommending a supermarket to others for convenient online shopping services. Furthermore, some people did not make sure about this statement, so that they expressed their responses as a maybe.

Table 75. *Recommend an online supermarket to others by males age group*

Male	Responses		Responses		Responses		Responses		Responses		Responses		Total	Percentage
	18-20	%	21-25	%	26-30	%	31-40	%	41-60	%	Over 60	%	Resp.	100%
Yes	6	<b>85.71%</b>	3	50.00%	2	25.00%	2	40.00%	2	40.00%	1	<b>100.00%</b>	16	<b>50.00%</b>
No	0	00.00%	0	00.00%	2	25.00%	0	00.00%	0	00.00%	0	00.00%	2	6.25%
Maybe	1	14.28%	3	50.00%	4	<b>50.00%</b>	3	<b>60.00%</b>	3	<b>60.00%</b>	0	00.00%	14	43.75%
Overall	7	21.87%	6	18.75%	8	25.00%	5	15.62%	5	15.62%	1	3.12%	32	100%

Table 75 shows participants' recommendations for others by the male age group. 85.71% of male participants aged group 18-20 interested in recommending an online supermarket to others for

convenient shopping services, 14.27% of those selected maybe. 50% of males aged within 21-25 concerned to suggest a supermarket to other people for excellent online ordering facilities, the rest 50% chosen not sure about this. Participants aged 26-30, 50% males revealed maybe, 25% no, and remainder 25% ready to suggest convenient online supermarket to people for online shopping. 60% of males from the 31-40 age group claimed maybe, while 40% recommended the online supermarket to their knows. As defines in table similar responses provided by males from the age group between 41-60. Lastly, 100% of males over 60s strongly believed to recommend the supermarket to others for excellent online shopping services.



*Figure 28. Recommend an online supermarket to others by females age groups*

This bar graph is about recommended an online supermarket to others by male age groups. The vertical axis shows the number of male participants and horizontal shows different age groups. The blue color indicates yes, orange to No, and grey for Maybe. The first blue color shows 85.71% of males aged between 18-20 states yes, they are interested to recommend an online supermarket to others for shopping. On the other hand, orange color shows 25% of males aged within 26-30 do not want to recommend an online supermarket to other people.

Table 76. *Recommend an online supermarket to others by females age groups*

Female	Responses		Responses		Responses		Responses		Responses		Responses		Total	Percenta
	18-20	%	21-25	%	26-30	%	31-40	%	41-60	%	Over 60	%	Responses	100%
Yes	1	20.00%	8	<b>80.00%</b>	7	<b>46.66%</b>	7	53.84%	1	20.00%	0	00.00%	24	44.44%
No	0	00.00%	0	00.00%	1	06.67%	0	00.00%	1	20.00%	0	00.00%	2	3.70%
Maybe	4	<b>80.00%</b>	2	20.00%	7	<b>46.66%</b>	6	46.15%	3	<b>60.00%</b>	6	100.00%	28	<b>51.85%</b>
Overall	5	9.25%	10	18.51%	15	27.78%	13	24.07%	5	9.25%	6	11.11%	54	100%

20% of females from the age group 18-20 defined that they did recommend online supermarkets to others for convenient shopping, while a maximum number of the females by 80% replied that maybe. Opposite in the case of aged group 21-25, 80% of female participants stated that they recommended online supermarket to others for suitable ordering facilities, the rest 20% respond maybe. Females aged 31-40 defined 46.66% did suggest supermarket to their known due to excellent online service, with 06.67% of those did not agree to do this. 53.84% of female participants aged between 41-60 replied positively, and 20% of females said that they did not suggest to anyone to use an online supermarket. 100% of females from over 60s age group concerned maybe for this statement.

## 4.20 Participants stories by sub-groups

### 1. Online supermarket ordering experienced by male and female participants

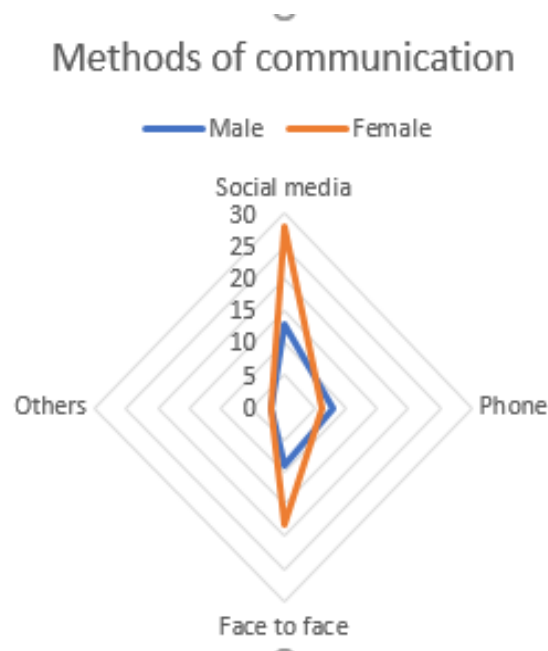


*Figure 29.* Online supermarket ordering experience

Figure 29 shows the online supermarket ordering experienced by males and females through a radar chart. The blue colour denotes the male participants, and orange colour representing the females. A 25 points scale is used with a 5-number difference for 85 participants. Mostly, 70.96% of male participants had a very good and good online ordering experience in the supermarket industry. On the other hand, female participants revealed that they had a 27.78% of very good, and 44.44% of good experience in online supermarket ordering. This is clear from a radar chart; male and female participants did not have any poor experience at all with online ordering.



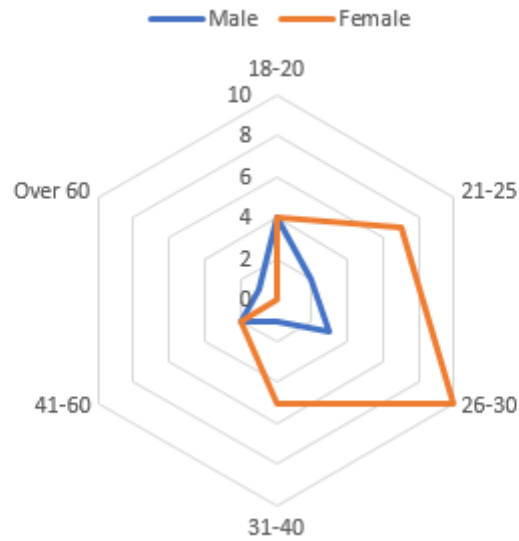
## 2. A different method of communication used by participants



*Figure 30.* Methods of communication used by male and female participants

Figure 30 represents the different methods of communication used by male and female participants through a radar chart. The blue colour line shows males' responses, and the orange line shows females' responses. A 30 points scale is used with a 5-number difference for 61 participants. Methods of communication were different for males and females. 40.63% of males had a high use of social media and 28.13% of males preferred face-to-face for sharing online ordering experiences with others. On the other hand- 51.85% of females had a high use of social media and 33.33% of females chosen face-to-face to interact with others.

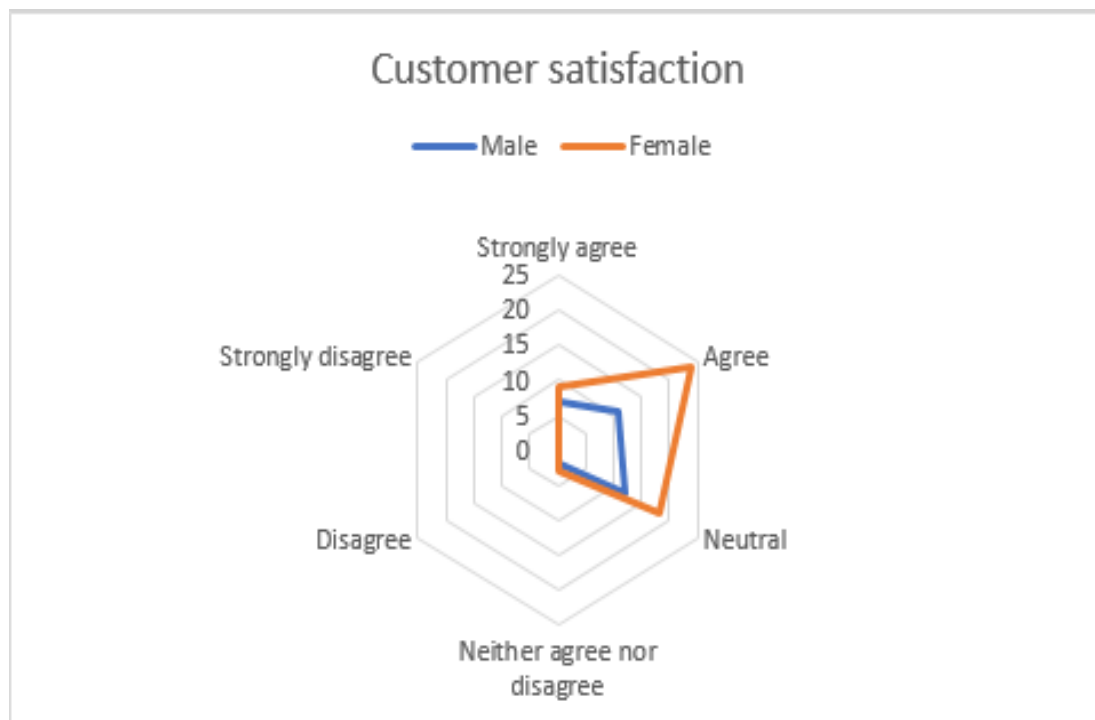
### 3. Use of social media by participants



*Figure 31.* Use of social media by different age groups

Figure 31 shows the use of social media by male and female participants from different age groups. The blue colour line shows males and orange line shows females. A 10 points scale is used with 2-number differences for 41 participants. The use of social media was different for males and females. 57.14% of males aged within 18-20 had a high use of social media sites as compared to other age groups. 66.67% of females aged between 26-30 preferred social media which is more than others.

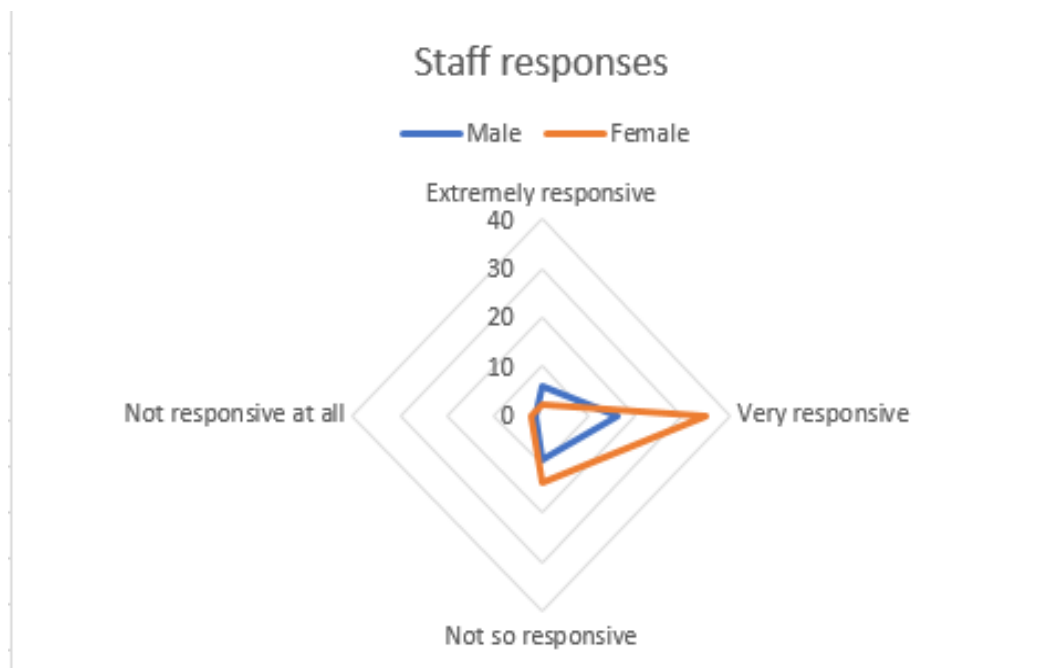
#### 4. Customer satisfaction with online supermarket ordering



*Figure 32.* Customer online supermarket ordering satisfaction

Figure 32 depicts the customer satisfaction level with online supermarket ordering by participants. The blue colour represents the males and orange colour lines representing females. A 25 points scale is used with a 5-number difference for 86 participants. 34.37% of males stated that they are agreeing to satisfy with online supermarket ordering services, along with 37.50% of males neutral. 44.44% of females said that they are satisfied with an online supermarket ordering service.

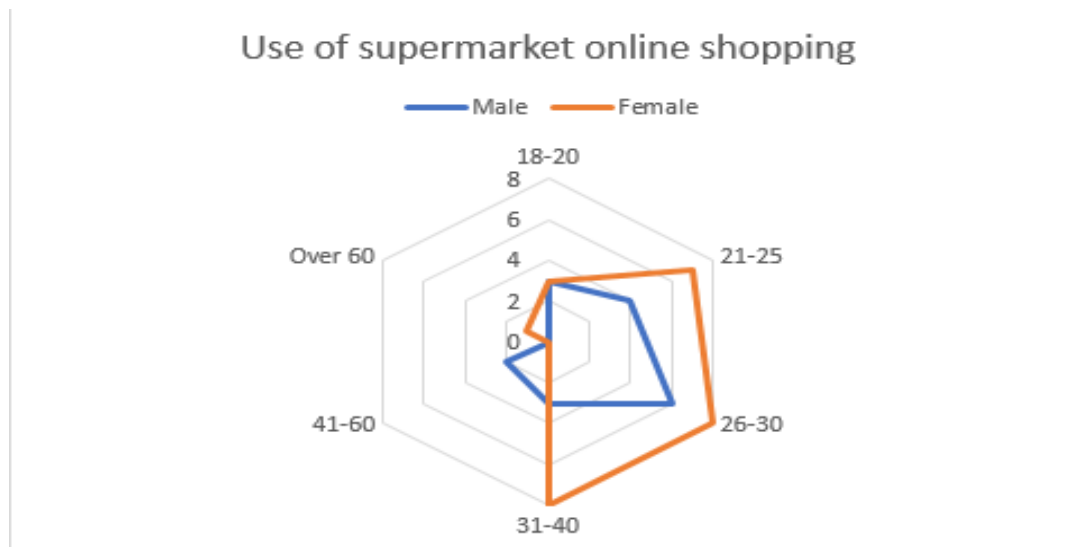
### 5. Experience with staff responses by male and female participants



*Figure 33. Experience with staff responses by participants*

This radar chart shows the experience of males and females with online supermarket ordering staff. The blue colour line shows male and orange colour line female participants. A 40 points scale is used with a 10-number difference for 85 participants. As shown in the radar graph, experience with staff responses were different for male and female participants. 50% of males and 66.04% of females had a very responsive experience with online ordering staff.

## 6. The frequency used supermarket online ordering



*Figure 34.* Use of supermarket online ordering by different age groups

Figure 34 defines the frequency used online ordering in the supermarket industry by different age groups. The blue line represents male and orange colour female participants. A 0 to 8 points scale is used with a 2-number difference for 48 participants. Mostly, 75% of males aged between 26-30 had a high use of online supermarket ordering more than other age groups. On the other hand, 61.53% of female participants aged within 31-40 preferred online ordering in the supermarket industry.

## 7. The frequency used online products



*Figure 35.* Use of online products by participants

Figure 35 defines the frequency used online products by male and female participants. The blue colour line represents male and orange colour female participants. A 0 to 25 points scale is used with a 5-number difference for 97 participants. 37.84% of males preferred an online product for more than a month. Similarly, 41.67% of female participants aged within 31-40 had high usage of online products for more than a month.

## 5. Discussion

### 5.1 Introduction

This section defines the data analysis that resulted from the online survey. A detailed descriptive statistics data analysis is shown through tables, bar graphs, line graphs, and pie charts. Users' stories by sub-groups are illustrated by using radar graphs to investigate the answers to each of the research questions. This chapter also provides a brief description of the research questions received from the literature review in section 5.2.

### 5.2 From the literature review

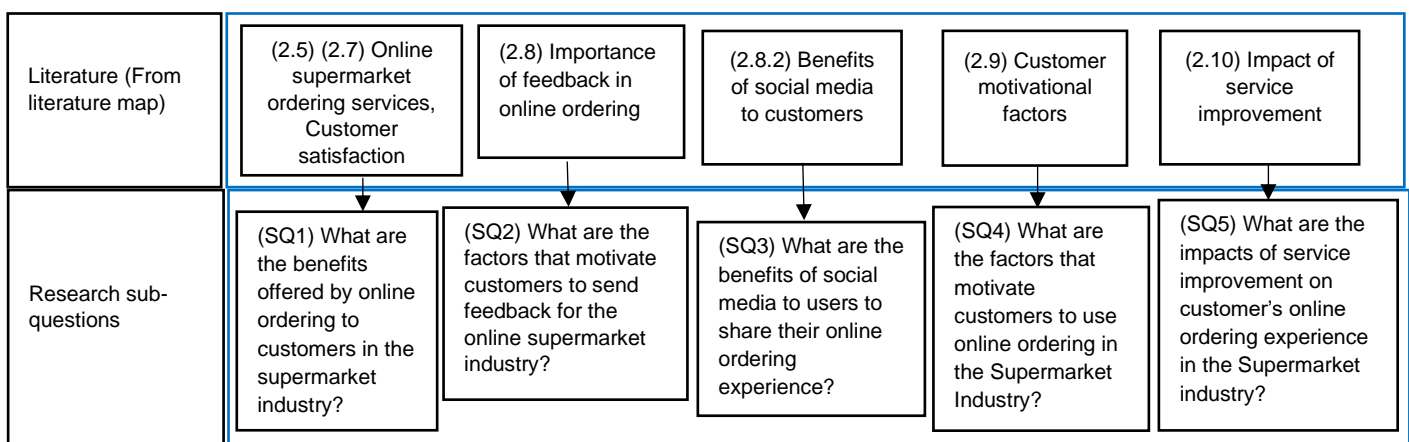


Figure 36. Literature (from literature map) and a link between research sub-questions

Figure 36 shows the literature (from the literature map) and a link between research sub-questions. The first column of Figure 36 displays the number title and the literature from the literature map. The last column shows the research sub-questions.

#### 5.2.1 Online supermarket ordering services

There are many benefits offered by online ordering to customers. In today's era, online ordering is expanding. Online ordering services involve many benefits for customers. Huang et al. (2018) listed the different online ordering services provided by supermarkets such as delivery services, high quality of products, gift coupons, discounts, and secure and safe payment methods. He et al. (2018) discussed the number of online customers on the official active account on online supermarket shopping sites that shows the popularity of online shopping among users. Benn et al. (2015) state that there is significant competition between electronic businesses, so they are

offering many profits to customers to enhance their services. According to Jiaxiang and Xingyu (2018), online companies have a plan to provide proper benefits to clients as well as to a business such as a target company's online users, easy order process, and increased sales. Ngwe et al. (2019) claim some benefits offered by an online ordering business are to make their clients happy, and there is no link to company profit such as gift cards for customers, extra discounts, and free home delivery.

According to this survey's responses, most people were satisfied with online ordering services. Participants provided feedback to express their shopping experiences, and suggestions as well if they wanted any other relevant service from a business. According to the participant's time, flexibility is an essential online ordering benefit for them. Therefore, few people occasionally use online ordering, such as for a party, but most of the participants use online ordering for daily or weekly shopping. However, many participants showed that they were satisfied with online ordering services because a company operated according to their expectations.

### **5.2.2 Benefits of social media to customers**

Haripriya and Jahnavi (2018), explained the advantages of social media to online customers. Social media is an open platform for online users to do ordering and share experiences to increase awareness for new customers who do not know about online ordering services. Busalim (2019) stated that individuals can view other users' reviews on social media sites easily. Therefore, new customers can make an ordering decision based on other clients' shopping history. Howison et al. (2015) suggest that people also like to share their satisfaction level based on ordering experiences with others through social media platforms.

According to this study survey, the primary use of social media in online ordering by customers is straightforward: social media is used as a communication tool. Participants expressed that they are using social media to interact with a company as well as with other users. Thus, online customers can deliver feedback and suggestions related to current e-services efficiently.

### **5.2.3 Customer motivational factors**

Kedia et al. (2019) describe the factors that motive online customers. According to Kedia et al., 2019, some factors help to motive online users such as freedom to shop, ease of use, saving travel time, and price comparisons. On the other hand, Haseon and Joonghwa (2019) claim that online companies need to make efforts to identify the desired factors that assist their users. Thus,



convenient services and customers' shopping experience monitoring defines the actual reasons to motivate customers. Hsu, Chen, and Kumar (2018) identify some of the motivating factors that do not work appropriately due to lack of management. Therefore, a customer relationship management (CRM) works as an intermediary between a company and current customers. Analysis of users' online ordering motivational factors are important to improve company relationships with customers (Ying-Yen, 2019).

According to survey participants, the factors that motivate a customer to use online ordering could be more than one. Participants expressed some factors through this survey that motivates them to continue shopping from online supermarkets. However, online customers have a pleasant experience with online ordering and delivery services with the quality of items. Most people are happy because online companies are providing direct interaction between clients and businesses to share ordering experiences to meet clients' requirements.

### **5.2.5 Impact of service improvement**

Prateek et al. (2016) suggest that to analyse the impacts of service improvement on customers' online ordering experience in the supermarket industry is very important. Dickson (2015) explains that service improvement can benefit from both sides, from the company or from the user. Therefore, the staff's query handling process is one of the essential tasks that affect customer service improvement. Shafiee and Bazargan (2018) state that, the impact of service improvement on online users included steps such as receiving a service request, assessing, planning, providing appropriate responses, and reviewing and improving. Thus, keeping records related to previous customers so that they can use it in the future for online service improvement is important.

From the survey responses, participants like to be sent suggestions to supermarkets to improve online ordering services in the form of feedback or reviews. Many participants feel their responses are beneficial for online supermarkets to improve services, but few do not agree with the notion. As a result, service improvement increased business profit and also increased the number of new customers.

Table 77 describes a summary of the description, which includes the conforming sections and sub-sections of the literature review, and discussion against each survey question and research questions.

Table 77. *Link research question to survey questions, literature review, and discussion*

Research Questions	Survey Question	Literature Review	Discussion
RQ 1	SQ5, SQ6, SQ11, SQ12, SQ13	2.5, 2.6, 2.7	5.2.1
RQ 2	SQ16, SQ17, SQ18	2.8, 2.8-1, 2.8-1.1, 2.8-1.2, 2.8-1.3, 2.8-1.4, 2.8-1.5, 2.8-1.6	5.2.2
RQ 3	SQ9, SQ19, SQ20, SQ21	2.8-2	5.2.3
RQ 4	SQ7, SQ8, SQ11, SQ12, SQ13	2.9, 2.9.1, 2.9.2, 2.9.3, 2.9.4, 2.9.5	5.2.4
RQ 5	SQ14, SQ17	2.10	5.2.5

In this investigation, themes and trends were determined to reply to the sub-questions, which could further assist in providing answers to the main question, providing more clarification about customer experience in online ordering in the supermarket industry.

Main research question. What are the factors that impact customer experience in online ordering in the Supermarket industry? The investigation results can be used to answer the main question by replying to the research sub-questions.

The main research question was divided into five sub-questions

1: What are the benefits offered by online ordering to customers in the supermarket industry?

2: What are the factors that motivate customers to send feedback for the online supermarket industry?

3: What are the benefits of social media to users to share their online ordering experience?

4: What are the factors that motivate customers to use online ordering in the Supermarket Industry?

5: What are the impacts of service improvement on customer's online ordering experience in the Supermarket industry?

The researcher investigated results from the survey and information from the literature to discover answers to these sub-questions. Table 80 shows how the survey questions (SQ5, SQ6, SQ11, SQ12, SQ13) answered researched question 1, as explained in sub-section 5.2.1. Research question 2 answered by survey questions (SQ16, SQ17, SQ18) is clarified in sub-section 5.2.2. how survey questions (SQ9, SQ19, SQ20, SQ21) responded to research question 3 described by sub-section 5.2.3. Research question 4 answered through survey questions number (SQ7, SQ8, SQ11, SQ12, SQ13), as explained in sub-section 5.2.4 and survey questions SQ14, SQ17 replied to research question 5 described in sub-section 5.2.5.

Furthermore, the third column of Table 80 describes how the literature sections 2.5 (Online supermarket ordering services), 2.6 (Customer experience), 2.7 (Customer satisfaction) help to answer the research question 1. Literature section 2.8 (Impact of technology), and sub-sections 2.8-1 (Customer feedback), 2.8-1.1, 2.8-1.2, 2.8-1.3, 2.8-1.4, 2.8-1.5, 2.8-1.6 support to respond the research question 2. Sub-section 2.8-2 (Benefits of social media) of the literature answered to research question 3. Section 2.9 (Customer motivational factors), and sub-sections 2.9.1, 2.9.2, 2.9.3, 2.9.4, 2.9.5 replied to research question 4. Research question 5 answered by the literature section 2.10 (Impact of service improvement). As a result, the main research question has been answered by different survey questions and the literature. Because survey questions and literature answered to research sub-questions, and results can be used to answer the main question by replying to the research sub-questions.

## **5.4 Limitations**

An online survey was the most efficient cost-effective technique for data collection in a shorter period, but still, some limitations have been discussed below in brief.

The survey link was sent to various people, but insufficient responses were collected for 4 weeks. The expected sample size was 599, and only 109 valid responses were received. The sample size is not enough for statistical significance; therefore, the results collected from the analysis might not apply to whole population.

Insufficient time was also one of the major concerns for this research project. This research used an online survey to gather information within four weeks, which was not enough to collect enough results for statistically insignificant data.

As an online survey system was used to gather data, there is a probability that participants might be bias or dishonest in their responses, which could lead to distorted outcomes. As the data were mainly obtained from the people belonging to the region Hamilton and Auckland, so results may not apply to all the people in New Zealand.

## 6. Conclusion

In the supermarket industry, people preferred to do online ordering to buy products—most people like online ordering because they have a good shopping experience. People had an excellent ordering experience with online ordering in the supermarket industry. On the other hand, females use online ordering more than males. Also, males and females like to share their online ordering experiences with others. Most of the participants were aware of how to use online ordering in the supermarket industry. Furthermore, males and female stated that online ordering was easy to use. The researcher provides a reply to the questions of the research and concludes the results from this investigation. The limitations and restraints of the research also discussed by the author. In the study investigation, the use of online ordering and its effects and influence on people in the supermarket industry was discovered with eight hypotheses in mind to confirm and verify. After data analysis, some hypotheses of the study could not be validated or assessed due to insufficient responses were collected. As a result, the sample size is not enough for statistical significance; so, the results gathered from the analysis might not apply to the whole population. Thus, the planned hypotheses were transformed into the research sub-questions.

In this investigation, themes and trends were determined to reply to the sub-questions, which could further assist in providing answers to the main question, providing more clarification about customer experience in online ordering in the supermarket industry.

The researcher investigated results from the survey and information from the literature to discover answers to these sub-questions. The TAM (Technology Acceptance Model) was used to understand the connection between what the survey outcomes reveal and what the literature reveals. Perceived usefulness mentions to online ordering are usefulness. Ease of use states to the easiness of using online ordering in the supermarket industry. Positive and negative attitudes are two types of attitudes in the framework of the research. To answer main research question there are some factors help to motive online users such as freedom to shop, ease of use, saving travel time, and price comparisons to do online shopping in the supermarket industry. Furthermore, the attitude towards the use of online ordering will affect the behavioral intention to use. The achievement after this study analysis is clearly stated that people prefer to use online ordering system and females use this system more as compared to males candidates. The main objectives for this research are to identify all significant factors that can impact customer experience during online ordering in the supermarket industry and also to assess different customer feedback methods in online supermarket ordering.

## **7. Further research**

The research main aim was to understand the use of online ordering services in the supermarket industry, and to analyzing the customer experience and satisfaction while online supermarket ordering. The data was collected during a limited time, and the outcomes may not be appropriate to all online users in online supermarket ordering in New Zealand. Therefore, further research is recommended in which all online users of New Zealand can be involved. This would provide a large sample size and a great representation of the population.

A further research is also recommended to understand the impact of online ordering through social media in the supermarket industry. Also, research is recommended to deepen understanding about the viewpoints of people, and the influence of the type of electronic devices used for online ordering, and the role of mobile ordering in an online supermarket industry for shopping.

During the analysis, it was investigated that due to technical challenges, better to understand the disadvantages of technology that using by customers for online ordering in the supermarket industry. Therefore, further research recommends studying the challenges faced by customers in the supermarket industry while using online ordering services, and lack of human interaction.

Also, further research is recommended to define the type of secure methods that should be used by users for payment in an online ordering process, and the study of psychological challenges in the adoption of online ordering among people in the supermarket industry.

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## Appendix

This section will list all the survey questions which will use in this research.

Survey Question No.	Survey Question
S1	<b>Are you over the age of 18 years?</b>
	<input type="checkbox"/> Yes <input type="checkbox"/> No
S2	<b>What is your age?</b>
	<input type="checkbox"/> 18-20 <input type="checkbox"/> 21-25 <input type="checkbox"/> 26-30 <input type="checkbox"/> 31-40 <input type="checkbox"/> 41-60 <input type="checkbox"/> Over 60
S3	<b>What is your gender?</b>
	<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Others <input type="checkbox"/> Prefer not to answer
S4	<b>Do you prefer to do your shopping online?</b>
	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Sometimes
S5	<b>How often do you buy products online?</b>
	<input type="checkbox"/> Up to once a week <input type="checkbox"/> Once a week <input type="checkbox"/> More than once a month <input type="checkbox"/> Less than once a year
S6	<b>Do you think online shops and delivery services are convenient?</b> <b>If yes, go to question no 6. If no, skip the survey. Thank you.</b>
	<input type="checkbox"/> Yes <input type="checkbox"/> No

<b>S7</b>	<b>Did your interaction with the company go according to your expectations?</b>					
	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Maybe			
<b>S8</b>	<b>Overall, how satisfied are you with online supermarket services?</b>					
	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Neither agree nor disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly Disagree

	<b>Survey Questions:</b>					
<b>S9</b>	<b>How would you rate your online ordering experience?</b>					
	<input type="checkbox"/> Excellent	<input type="checkbox"/> Very Good	<input type="checkbox"/> Good	<input type="checkbox"/> Average	<input type="checkbox"/> Poor	
<b>S10</b>	<b>What is the main reason for your shopping in online supermarkets?</b>					
	<input type="checkbox"/> To do a weekly shop	<input type="checkbox"/> To buy specific items	<input type="checkbox"/> For Party	<input type="checkbox"/> Others ..... .....		
<b>S11</b>	<b>How easy for you to use supermarket online shopping services?</b>					
	<input type="checkbox"/> Extremely easy	<input type="checkbox"/> Slightly Easy	<input type="checkbox"/> Neither easy Nor difficult	<input type="checkbox"/> Slightly difficult	<input type="checkbox"/> Moderately difficult	<input type="checkbox"/> Extremely difficult
<b>S12</b>	<b>How well does online supermarket services meet your requirements?</b>					
	<input type="checkbox"/> Extremely well	<input type="checkbox"/> Very well	<input type="checkbox"/> Some- what well	<input type="checkbox"/> Not so well	<input type="checkbox"/> Not well at all	



<b>S13</b>	<b>How would you rate the quality of online supermarket products?</b>				
	<input type="checkbox"/> Very high quality	<input type="checkbox"/> High quality	<input type="checkbox"/> Neither high or low quality	<input type="checkbox"/> Low quality	<input type="checkbox"/> Very low quality
<b>S14</b>	<b>What is your experience with staff response about queries?</b>				
	<input type="checkbox"/> Extremely responsive	<input type="checkbox"/> Very responsive	<input type="checkbox"/> Not so responsive	<input type="checkbox"/> Not at all responsive	<input type="checkbox"/> Not applicable
<b>S15</b>	<b>Will you repurchase the products from the same supermarket if you are satisfied with online service?</b>				
	<input type="checkbox"/> Strongly agree	<input type="checkbox"/> Agree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Disagree	<input type="checkbox"/> Strongly disagree
<b>S16</b>	<b>How many times have you sent feedback to online supermarkets?</b>				
	<input type="checkbox"/> Always	<input type="checkbox"/> Usually	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Rarely	<input type="checkbox"/> Never

<b>S17</b>	<b>Did you give any suggestions to online retailers to improve their customer services?</b>				
	<input type="checkbox"/> Yes	<input type="checkbox"/> No			
<b>S18</b>	<b>Do you feel your responses could be useful for online supermarkets to improve their services?</b>				
	<input type="checkbox"/> Extremely useful	<input type="checkbox"/> Moderately useful	<input type="checkbox"/> Slightly useful	<input type="checkbox"/> Neither useful nor useless	<input type="checkbox"/> Do not know
<b>S19</b>	<b>Did you communicate with other customers about your satisfaction level with your online supermarket shopping?</b>				

<b>S20</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No			
	<b>If yes, how did you communicate?</b>			
	<input type="checkbox"/> Social media	<input type="checkbox"/> Phone	<input type="checkbox"/> Face to face	<input type="checkbox"/> Others, ..... .....
<b>S21</b>	<b>Would you recommend this supermarket to others for convenient online shopping?</b>			
	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Maybe	



**Research and Postgraduate Office (RPGO)  
Human Ethics in Research Group (HERG)**

**LOW-RISK HUMAN ETHICS IN RESEARCH APPLICATION FORM**

Please refer to the [Ethics Guidelines](#) prior to completing this application.

The RPGO is located at the City Campus, D-Block (Offices D2.22 – D2.24), email [research@wintec.ac.nz](mailto:research@wintec.ac.nz) or phone Megan Allardice on Ext. 3582 for more information.

**Please see the last page of this document for detailed instructions for completing this form.**

**1.0 PROJECT TITLE**

	<b>A Study of the Customer Experience of Supermarket Online Ordering Services</b>
--	---

**2.0 RESEARCHER(S)**

2.1	Primary researcher's name	Harjit Kaur Bhullar
2.2	School//Centre/Unit	Centre of Business and Information Technology
2.3	Contact Details (Telephone and E-mail)	Telephone: +642041116285 E-mail: <a href="mailto:bhullarharjit3@gmail.com">bhullarharjit3@gmail.com</a>
2.4	Is this application a:	<input checked="" type="checkbox"/> Student Application      Staff Application
2.5	If this is a student application, please	INFO803

	provide the Module code here	
2.6	Is this project a staff application that utilises work partially or wholly undertaken by students who are not participants (e.g. data collection undertaken by a researcher's class)?	No
2.7	If so, please clearly describe what the role of these students is to be in this research, what the work will be for explicitly (including any issues regarding authorship of research outputs such as journal articles), and what steps have been taken to ensure students are aware of this.	Not applicable
2.8	Name of other Researcher(s) and positions. (If this is a student application, please provide the name(s) of the project supervisor(s) and indicate that they are supervisors here.)	Dr. Kay Fielden
2.9	Contact Details of other researchers and supervisors  (Telephone and E-mail)	E-mail: Kay.Fielden@wintec.ac.nz  <input type="checkbox"/>
2.10	Is this application:	<input checked="" type="checkbox"/> A new application  <input type="checkbox"/> A subsequent approval request following a significant change to an already approved application

### 3.0 PROJECT TIMELINE

	The projected start date for <b><u>data collection</u></b> ( <i>once this ethics application is approved. Please note, projects can only begin once applications have been approved, regardless of the level of risk</i> ):  Projected end date: End of semester 2020
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**4.0 PROJECT SUMMARY** (please include your research purpose and objectives, the methodology will be dealt with in Section 6)

This study is regarding customer satisfaction while using online supermarket services and what are the factors that impact on supermarket online ordering business in reporting customer services. This research project will also focus on the level of customer satisfaction and then after reporting the benefits of online technology for customers. A research model based on the TAM model (Technology Acceptance Model) will be used for quantifying the results and retrieving answers to the research questions.

**5.0 PROJECT METHODOLOGY** (including methods for data collection)

An online survey (20 questions) will be used to get the opinion, reasons, and level of satisfaction of supermarket online customers. Survey monkey, an online survey system will be used for the survey. For this research a population size of 416000 will be considered an interval of 4 and a confidence level of 95%, hence generating a sample size of 599. This research will use online tools to analyze the result and retrieve the answer to the research questions.

## 6.0 CONSIDERATION OF ETHICAL ISSUES AND PROCESSES

The following ethical issues and processes will be taken into consideration while undertaking this research project:

### **Risk of harm**

This research will neither put the participant, nor the research to risk. The study will not use questionnaires or interviews that might cause discomfort, embarrassment or psychological or spiritual harm to the participants. There will be no process during research that may prove to be potential disadvantages to a person or group. This research will use Qualtrics online tool to create an online survey, that survey will further send out through social media and email to collect data from customers. This research will not collect information about illegal behaviour that could place the participants at risk of criminal or civil liability or be damaging to their financial standing, employability, professional or personal relationships. This research does not require the collection of blood, body fluid, tissue sample or similar. This research does not involve any form of exercise regime, physical examination, or deprivation. This research also does not cause any physical pain, beyond mild discomfort or expenditure of energy.

### **Informed and voluntary consent**

This research will not include participants whom the researcher can identify as being unable to give written consent for any reason or who are unable to provide informed consent. There will be no participants from the class from which the researcher teaches. This research will only include participants over the age of 18 who are not in a dependent situation, such as people with a disability, or residents of a hospital, nursing home, or prison, or vulnerable in any other way. This research will include the consumers who are using the supermarket shopping services via online.

### **Privacy and confidentiality**

This research does not involve evaluation or investigation of organisational services or practices, where personal or otherwise sensitive information is being collected, and where a participant may be identified. This research will gather information related to customer's experience with online supermarket industry.

### **Deception**

There will be no deception of participants, including concealment and covert observations. While collecting data through online survey, a participant will enter his/her login password to access the survey.

**Conflict of interest**

There are no conflicts of interest for the researcher. All survey questions will not relate to their personal life, this research will only contain the contents of customer's experience with online supermarket industry. This research will not violate the participant's privacy.

**Compensation to participants**

There will not be any inducements or payments to participants.

**Procedural**

This research does not require any further ethical requirement or approval from an outside organization, or a Wintec Institutional Consent form.

**Treaty of Waitangi and Māori participation**

Māori are not the primary focus of this project.

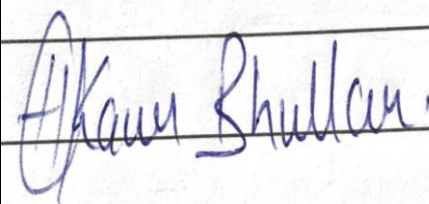
**Other cultural considerations**

This research does not target any particular ethnic group, and no aspects of this project might raise specific cultural issues. But this research will focus on how the customer will be satisfied during online shopping with a supermarket.

**Health and disability research committee review**

The participants of this research are not required to participate in their capacity as consumers of health or disability support services, or relatives or caregivers of consumers of health or disability support services. This research also does not include participants who are volunteers in clinical trials. This research does not involve the use of human tissue or participants' health information. This research will not involve any participant belongs to health industry, because the main target of this research to involve the online supermarket shopping users.

**Researcher(s) signature(s) (the name and signature of all researcher(s) are to be included):**

<b>Name</b>	<b>Signature</b>	<b>Date</b>
Harjit Kaur Bhullar		22-02-2020



**Primary Supervisor's signature (if this is a student application):**

Name	Signature	Date
Dr Kay Fielden		22-02-2020

**Research Leader's signature:**

Name	Signature	Date

**HERG Chairperson or delegated representative's signature (RPGO use only):**

Name	Signature	Date

## COMPLETING THIS FORM

**Please note:** A low-risk research project is one in which the nature of the potential/actual risk of harm to participants or the researcher is minimal and no more than is normally encountered in daily life. If, as a staff member, you are new to research or are in any doubt as to which application to submit, please consult with your Research Leader. If you are a student, your supervisor will be able to give you advice. If you are still in any doubt, don't hesitate to consult the RPGO.

## SPECIFIC INSTRUCTIONS

- All questions are to be answered. Note the questions within require a mix of descriptions, yes/no answers and cross the box (**Double-click on checkboxes with your mouse and select 'Checked' from the options under 'Default Value'**).
- Research Leaders need to review the information in this form and sign it off prior to the application being made to the RPGO.
- Please forward one signed an original copy to the RPGO, together with an electronic version to [research@wintec.ac.nz](mailto:research@wintec.ac.nz).
- Low Risk Human Ethics in Research Applications also need to be accompanied by a copy of the Information Sheet, Consent Form, and any Questionnaires or Interview Schedules for consideration. If Questionnaires/ Schedules are not yet confirmed, please supply the latest draft.
- No questions are to be deleted, even those that you feel you are not required to answer.
- No part of the research requiring ethical approval should commence prior to approval being confirmed.
- Applicants will receive official confirmation of submission via email from the RPGO once all conditions of this form have been completed.
- If you want to apply for an extension on a previously approved project, please contact the RPGO, as you will probably not need to submit a separate application.
- Applicants will be advised of the outcome of their application to the Human Ethics in Research Committee **no later than ten working days** after the completed and confirmed submission of this application.

### HUMAN ETHICS IN RESEARCH LOW RISK APPLICATION FORM - CHECKLIST

<b>Research project title:</b>	A Study of the Customer Experience of Supermarket Online Ordering Services
--------------------------------	--

<b>Name of primary researcher:</b>	<b>Harjit Kaur Bhullar</b>
------------------------------------	----------------------------

<b>Attached please find (as applicable) in the order listed below</b>	
<b>Completed HERG Low-Risk Application Form</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Consent Form for participants</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Information Sheet for participants</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Copy of Focus Group Questions, Interview Schedule, or similar</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Waikato Institute of Technology  
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www.wintec.ac.nz



**Project Title:** A Study of the Customer Experience of Supermarket Online Ordering Services

## Participant Consent Form

(One copy to be retained by the Research Participant and one copy to be retained by Researcher)

I attest to the following:

1. I have been informed fully of the purpose and aims of this project
2. I understand the nature of my participation
3. I understand the benefits that may be derived from this project
4. I understand that I may review my contributions at any time without penalty
5. I understand that I will be treated respectfully, fairly and honestly by the researcher/s, and I agree to treat the other participants in the same way
6. I understand that I will be offered the opportunity to debrief during, or after this project.

7. I have been informed of any potentially harmful consequences to me of taking part in this project
8. I understand that I may withdraw from the project at any time (without any penalties)
9. I understand that my anonymity and privacy are guaranteed, except where I consent to waive them
10. I understand that information gathered from me will be treated confidentially, except where I consent to waive confidentiality
11. I agree to maintain the anonymity and privacy of other participants and the confidentiality of the information they contribute.

Principal Researcher: Harjit Kaur Bhullar

Date: 22/02/2020

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## Participant Information Sheet

**Title of the project:** A Study of the Customer Experience of Supermarket Online Ordering Services

### About the survey:

This survey is regarding supermarket online ordering customer satisfaction. There are 20 questions regarding supermarket online ordering services. This survey will help to know the level of satisfaction of customers with supermarket online ordering services.

### The purpose of the research project

The purpose of the research is to figure out the supermarket's online companies' services. This research will help to find out the satisfaction level of customers and customers' expectations. How do customers use various technology methods to do online supermarket ordering? What type of factors that responsible for customer satisfaction with online supermarket ordering? What are the benefits of social media to users to share their online ordering experience?

### What is expected of participants

The participant will provide correct information. The participant will understand the purpose of this research and survey questions.

### How long it will take

The survey will take approximately 3-5 minutes.

### **Where the data will be collected**

The data will be collected in a password protected computer. The researcher can access that computer.

### **What will do to the information provided?**

The information will be used for research work. There will be not any misuse of this information. The data will never be shared with any company or any other third party. The data will be deleted after the research completion.

### **Whether it is compulsory to participate**

It is not a particular restriction to participate in this survey. It will depend upon the person to join. But, People over 18 can only participate in this survey.

### **Whether participants can withdraw and how**

The participant can withdraw anytime. They have to click on the finish button for retreat, but their data will not be collected and used for the research.

### **How participant privacy is to be protected**

In this survey, no private and confidential information will collect from the participant. The participants will not mention their names and other private details during the survey. All the collected data will keep safe on a password-protected computer.

### **Where research results will be made available**

The search result will be published in the Master's Research report.

## **Details for participants who have any further enquired**

If any participant has any inquiries regarding survey or research, send me an email anytime. I will respond as soon as possible.

Name of Researcher: Harjit Kaur Bhullar

Contact Details: e-mail

[bhullarharjit3@gmail.com](mailto:bhullarharjit3@gmail.com) Date:

22/02/2020

**Note:** Consider carefully who your participants

are and how best to communicate with them.

Try to write the consent form in a language that

is clear and correct, and that will be understood

easily by your participants.

Participants cannot consent to something that they do not under

**Harjit Kaur Bhullar**

Primary Researcher

Student at Waikato Institute of Technology

Pursuing master's in applied information technology (IT)

E-mail id: [harbhu24@student.wintec.ac.nz](mailto:harbhu24@student.wintec.ac.nz)

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Contact number: 020-4111-6285

**Dr. Kay Fielden**

Primary Supervisor

Staff at Waikato Institute of Technology

E-mail id: [kayafielden@gmail.com](mailto:kayafielden@gmail.com)

Date: February 22, 2020